

# THE COSPLAY HANDBOOK

A BOOK OF COSTUME AND PROP MAKING TECHNIQUES

BY GRACE HERBERT



The Cosplay Handbook  
Copyright © 2019 by Grace Herbert  
Formatted by Adam Ellis  
Edited by Stephanie Crets  
All rights reserved.  
[www.zonbisworkshop.com](http://www.zonbisworkshop.com)

## **DEDICATION**

To those who love creating.

To my Mom who encouraged me to make my first costume and tolerated years of cosplay-induced messes.

Adam for his endless love, support, and encouragement.

Fabricators like Bill, Brittany, Svetlana, Benni, Steven, Fred, and many others who inspired me to create this book and always offer their advice and experience.

# CONTENTS

<b>Safety First!</b> .....	<b>7</b>
<b>Introduction</b> .....	<b>8</b>
<b>You Can Cosplay!</b> .....	<b>10</b>
<b>How Do I start?</b> .....	<b>12</b>
<b>Choosing a Cosplay</b> .....	<b>13</b>
Cosplay & your comfort level .....	14
Cosplay & your time limit .....	14
Wearing cosplay to conventions .....	15
Cosplay & the forecast .....	17
<b>Planning a Cosplay</b>	
References .....	18
Material considerations .....	18
Make or buy .....	19
Simplify your build .....	19
Goal Setting .....	21
<b>Tools</b> .....	<b>22</b>
Sharps & sharpeners .....	22
Self-healing cutting mat .....	22
Squeeze bottles .....	22
Rotary tool .....	22
Shop cups .....	23
Heat gun & glue gun .....	23
Writing utensils and paper .....	23
Brushes .....	23
Sewing machine & needles.....	24
Seam ripper .....	24
Pins & clips.....	24
Measuring tools.....	24
<b>Materials</b> .....	<b>25</b>
Foam .....	25
Thermoplastic.....	26
PVC & dowels.....	26
Wood.....	26
Plastic wrap & duct-tape.....	27
Paper towels, rags, and shop towels.....	27
Adhesives.....	27
Sand paper.....	28

<b>Materials (cont.)</b> .....	<b>28</b>
Fabric & thread .....	28
Plasti dip .....	28
Paint .....	29
Elastic .....	29
Webbing .....	29
Buckles .....	30
Industrial velcro .....	30
<b>Shopping for Supplies</b> .....	<b>31</b>
Online stores .....	32
Brick-and-Mortar Stores .....	32
Thrift, Thrift, Thrift! .....	32
Shop your closet .....	33
<b>Pattern Making</b> .....	<b>36</b>
Plastic wrap & tape patterns .....	38
Garment patterns .....	41
Making garment patterns from tape .....	41
Using a dress form .....	43
Making patterns from clothes you own .....	43
<b>Sewing</b> .....	<b>44</b>
Making & buying patterns .....	45
Ironing .....	45
Stretchy fabric: a cosplayer's best friend! .....	45
2-way stretch fabric vs 4-way stretch fabric .....	46
Sewing machine feet.....	46
Stitches .....	46
<b>Armor Making</b> .....	<b>47</b>
Making a helmet .....	49
Making chest & "boob" armor .....	52
Use yourself as a pattern .....	53
"Bulky" chest armor .....	58
Back armor .....	60
Making hand & forearm armor .....	61
Making your own gloves for gauntlet armor .....	63
Making shoulder armor .....	65
Making shin & thigh armor .....	68
Making shoe covers & armor .....	72
<b>Adding Details</b> .....	<b>75</b>
Adding details before or after it's wearable .....	75
Subtractive details .....	75

Recessed details .....	75
Using tools to make recessed details .....	76
Using a heat gun to make details pop .....	77
Additive details .....	77
Using pre-made bevels & dowels .....	78
Googly eyes & more! .....	78
2mm foam layering .....	79
<b>Prop Making .....</b>	<b>80</b>
Material considerations .....	80
Using existing parts .....	80
Construction .....	81
<b>Priming .....</b>	<b>85</b>
<b>Painting .....</b>	<b>86</b>
Finding & mixing the right colors .....	87
Brush, airbrush, or spray paint? .....	88
Masking .....	89
Painting a metallic finish .....	90
<b>Weathering .....</b>	<b>92</b>
Paints .....	92
Brushes .....	93
Paper towels .....	93
Weathering armor .....	93
Paint wash .....	94
Scrapes & dings .....	95
Weathering fabric .....	96
<b>Strapping Armor .....</b>	<b>97</b>
Elastic .....	97
Webbing .....	97
Buckles .....	98
Industrial velcro .....	98
Scoring & sanding .....	99
Attaching straps .....	99
Thread .....	100
Hot glue .....	100
Ca glue .....	100
The foam sandwich .....	101
How to strap thigh & shin armor .....	104
Elastic for leg armor .....	104
Stretch fabric for leg armor .....	104
Velcro for leg armor .....	104

<b>Wigs</b> .....	<b>105</b>
Using a wig cap .....	105
Putting on a wig .....	106
Styling a wig .....	107
Finishing touches .....	108
Brushing your wig .....	109
Washing your wig .....	110
<b>Traveling with Cosplay</b> .....	<b>111</b>
<b>Cosplay Photography</b> .....	<b>113</b>
Where to take photos .....	114
When to take photos .....	114
Solo cosplay photography .....	115
Recruit your friends .....	115
Editing your photos .....	116
<b>Closing</b> .....	<b>117</b>

# SAFETY FIRST!



Safety first! Being safe while working with the many dangerous chemicals, glues, paints, materials, and tools that are used when creating cosplay is paramount. Putting your safety in jeopardy for the sake of making a costume is never worth it. Do your research and read every safety label that is included with the tool or material you use.



Trust me. You want to keep all your limbs and eyeballs so you can keep making cool stuff! Use the appropriate safety gear as directed by each tool and material to help protect your eyes, lungs, and skin from harmful products.

# INTRODUCTION

Hi I'm Grace! I'm a cosplayer living in Austin, Texas, and I've been making costumes and props for more than 10 years.

I've always considered myself a huge geek. I have loved anime, action movies, and video games for as long as I can remember. When I was 12, I was browsing a fan forum and saw a photo of a group of people who were dressed as characters from the game. I remember admiring how perfect they looked! My little brain couldn't understand the wizardry of turning real people into my favorite fictional characters.

In 2006 I was 14 and convinced my Mom to take me to my first convention. A week before the con, my Mom asked, "Hey do you want to make a costume for the anime con you're going to?" At the time, I had no idea what cosplay was, but I wanted to wear a cool costume. I didn't know where to start or how to make anything. I was intimidated! But I fell in love with the idea of making a costume of my favorite anime character at the time.

My Mom knew how to sew, so she drove me to our local craft store to help me choose some patterns and fabric. When we got home, she taught me how to use her 1950s model sewing machine. I remember being so frustrated with threading the bobbin I cried! I felt so mad at myself when I struggled to understand the patterns and sew a straight line. Luckily, my Mom helped me every step of the way, and we finished it in time for the convention. I remember hot gluing fabric to some shoes before getting into costume for the first time. I was so proud! The satisfaction of transforming a pile of materials into something I could wear felt like magic.

I had no idea what to expect at my first anime convention, but when I arrived I was overwhelmed by how welcoming and positive everyone was. Con-goers told me my costume was great. Some people even asked to get pictures taken with me. I met other people my age who were dressed up as characters from the series I was cosplaying from and we became fast friends. I only got to go to the convention for a day, but I was hooked on the positivity of meeting other people who loved crafting, video games, and anime as much as I did.

The infectious excitement, positivity, and sense of community is something I had never experienced before, and I knew I wanted to be a part of it forever.

**MY ZABRAK JEDI COSTUME I  
MADE FOR THE PREMIERE OF  
ROGUE ONE.**



**PHOTO BY:  
ACCOSPLAY**

# YOU CAN COSPLAY!

It doesn't matter the body type, age, or race you are; If you want to cosplay... cosplay! The cosplay community is full of people from all walks of life. Thanks to cosplay's surge in popularity, it's more accessible and affordable now than ever before.

There is a misconception that making cosplay is extremely expensive. As someone who grew up in a low-income family and worked to pay for their own cosplay supplies —don't worry! You can cosplay too! Soon you will learn about the magic of thrift shops, recycling old clothing, and economical materials to use.



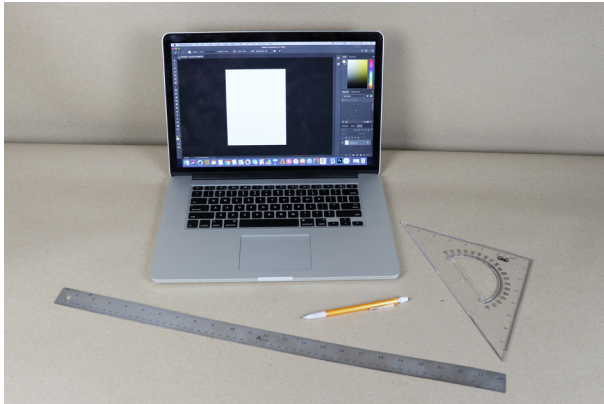
**“COSPLAY DOESN'T HAVE TO BE PERFECT TO GET THE POINT ACROSS.”**



Cosplay doesn't have to be perfect to get the point across. In fact, even the most experienced cosplayers don't cosplay a character without flaws. You don't have to go to extremes like shaving your head or losing weight in order to get the look of the character you want to cosplay. It is okay to not have the same hair, skin, or eye color. While some might nit-pick the details, most con-goers will actually compliment your creativity!

## “I CAN’T EVEN DRAW A STRAIGHT LINE! HOW CAN I MAKE AN ENTIRE COSTUME?”

This is a question I get asked a lot. I’ll start out by saying even expert cosplayers use a ruler or a digital program to help them draw a straight line.



We all start somewhere! No one has ever leapt out of the womb in a full set of custom-made Mijlonir armor (although that would be impressive). Cosplay takes practice. No matter how much experience you have making props and costumes, there is always room for improvement. Some bring skills and experience to their cosplay project from other hobbies or careers. Others are brand new without

much creative experience at all. Experienced or not, you have something unique to offer when beginning a build. I have introduced friends and co-workers to cosplay who claimed to have no creative or artistic background. However, they had the discipline to practice their crafting skills, which has transformed them into awesome makers.

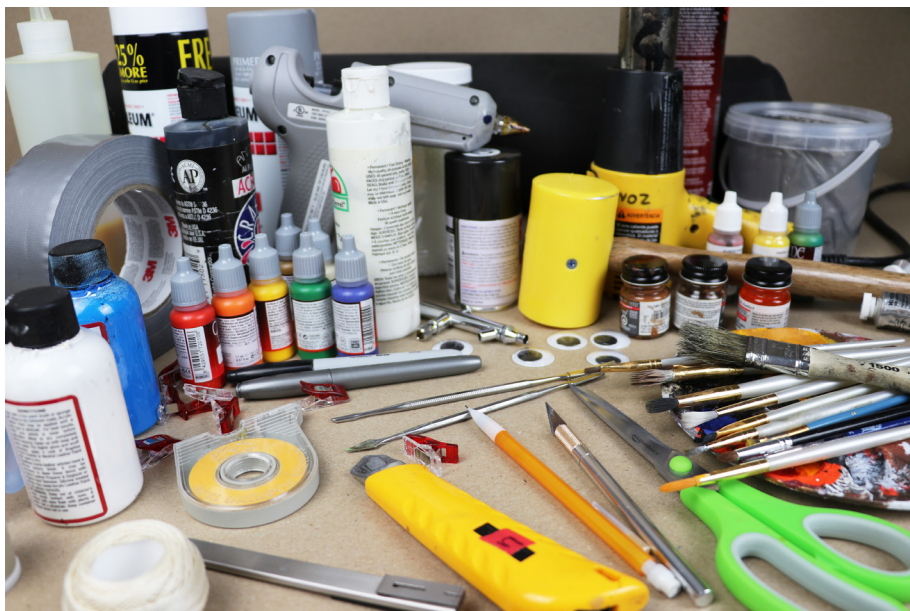


When planning, pinpoint what you’re comfortable doing and think about how you can showcase that in your build. When I first got into cosplay, painting was what I was most comfortable doing so I made sure to incorporate that skill in my cosplay designs. Maybe for you it’s engineering, electronics, design, or another skill. If you don’t know what specific facet of cosplay construction is your favorite yet, that’s great too. You’re like a sponge that can soak up all the latest and greatest information that’s available. Not to mention you probably haven’t adopted any creative bad habits yet!

# HOW DO I START?

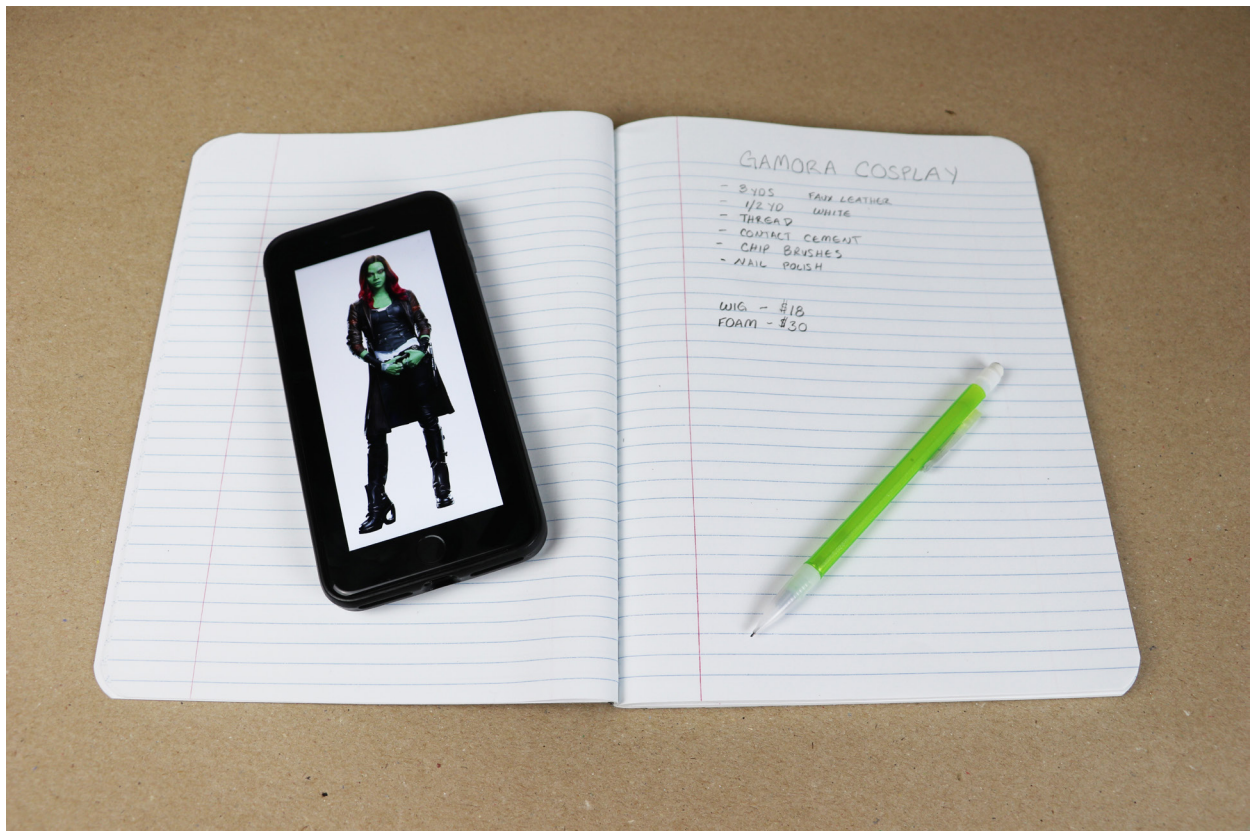


This is a question that even experienced cosplayers ask themselves at the beginning stages of a project. Getting started on a costume can be daunting. You may ask yourself: How do I plan a cosplay? Where do I get materials? What tools do I need? You're asking all the right questions! From choosing a cosplay to executing a photoshoot with a finished costume, there are many steps involved. But with proper planning, budgeting, and discipline, you can tackle any project. The following pages will help you along on your own cosplay journey. No matter how many costumes you've made (even if that number is 0), you should always be excited about your creative potential. You can make anything!



# CHOOSING A COSPLAY

This is the fun part. Well, almost everything about cosplay is the “fun part,” but this part of the creative process is especially exciting. It’s time to think about all the characters you want to cosplay. You don’t have to have a strong emotional response to the character (although many cosplayers prefer to cosplay characters they can relate to). It doesn’t matter what your reason is for wanting to cosplay a character, even if that reason is you just REALLY love their outfit.



I bet several characters you like came to mind. Some people have a hard time deciding who to cosplay first, but fear not! Having multiple inspirations is a great thing. You can always come back to your other costume ideas when you’re done with a project.

If you are having trouble deciding what costume to make, these questions will help lead you in the right direction:

## COSPLAY & YOUR COMFORT LEVEL

Make a costume you're comfortable making. Many experienced cosplayers will tell newcomers to begin cosplaying by making a simple costume and to avoid certain techniques. Although I believe this idea helps some newcomers, I also believe this perceived rule is too general for everyone entering the hobby. If you're new to cosplay but you've read dozens of tutorials, invested in a sewing machine, and you have the determination to sew a complex bodysuit for your first costume—why not give it a try? Whether your first costume is sourcing and modifying clothes from your local thrift store or creating a suit of armor from scratch, if you're passionate about it, you are doing it right.



*This was my first attempt at making armor when I was 17. A lot of people said it was too challenging for a beginner to attempt, but I decided to try it anyway. Although it didn't turn out exactly as I wanted, I learned a lot and didn't regret giving it a try.*

## COSPLAY & YOUR TIME LIMIT

When do you need your cosplay done by? Are you planning on wearing it in two weeks or six months? How much time you have to create a costume should influence what you decide to make.



# WEARING COSPLAY TO CONVENTIONS



Many cosplayers wear costumes to gaming, anime, and pop culture conventions. Here are some important tips and considerations if you're choosing a costume for a convention:

## CON TIP #1 CROWDS

Know how many people are expected at the convention. Is it a local convention with 3,000 attendees or is it a comic con in San Diego with over 130,000 attendees? For exploring crowded conventions, I prefer wearing costumes that are sleeker and easier to move through crowds. However, if I want to showcase a large costume at a busy convention, I will plan to stay primarily in one place inside the convention center for a set amount of time. I will also have a quick exit plan for when I get too hot or exhausted.



*I wore this Fallout cosplay to New York Comic Con that had over 100,000 people attending. This cosplay was perfect for seeing the con in style.*

## CON TIP #2

### PROP RULES

Know the prop weapons policy at a convention. Every con should have a weapons policy available on their website. A weapons policy is a guide to let cosplayers know what props and weapons are permitted at that specific convention. Many conventions don't allow airsoft guns, prop guns without orange tips, props with sharp edges, projectiles, and more. Some conventions physically mark or tag your prop to signify that it has been "checked." Other conventions don't allow prop weapons of any kind. Being familiar with the weapons policy will ensure you won't run into any surprises when you arrive at the convention.



## CON TIP #3

### DRESS CODE

Know the convention's dress code. The majority of cons have a dress code available on their website. Most convention's dress codes are lenient and allow you to wear what you like as long as it is within legal reason. Other conventions, like ones in Japan for example, have strict rules on how much skin you can show, where you can show your skin, and how large your costume can be. Many conventions in Japan won't even allow cosplayers to enter the con in a costume. Cosplayers are expected to bring their costume in a suitcase and change in a designated cosplay changing area on site. Luckily, this is extremely uncommon at conventions elsewhere in the world.

## COSPLAY & THE FORECAST



What time of year are you planning on wearing your costume? Is it for a photoshoot or event in winter? Summer? I strongly consider the weather when choosing and planning a costume. Living in Texas, I know it is 80 degrees (26 °C) or hotter most of the year. In summer it can get up to 110 degrees (43 °C) or hotter! Wearing a giant, armored costume in unbearable heat is not only uncomfortable, but extremely dangerous! The heat won't deter me from creating a bulky costume; however, I know I can only wear it when I'm well hydrated, in an air-conditioned facility, early in the morning, and late in the evening when temperatures drop. If I know I will be outside for any amount of time at a convention in extreme temperatures, I will wear a light and simple costume that is easy to change out of if need be.

# PLANNING A COSPLAY



Now that you know what cosplay you want to make, you can start planning how to make it a reality. Here are some ideas to get you started!

## REFERENCES

Depending on your costume, you can find a 360-degree view of your character in screenshots from the movies, video games, or anime they are from. Many developers, directors, and designers release 360-degree turnaround of the characters to help cosplayers. Some developers go above and beyond for cosplayers by releasing "cosplay guides" that list suggested materials to use for their characters' designs.

## MATERIAL CONSIDERATIONS

Look at your references and make a list of each piece of the costume and what materials you'll need. If you have fabric store in your area, go there and look at fabrics in person and feel the material to get an idea of what you like and don't like. In my experience, I have found it more beneficial to purchase extra materials (like foam and fabric) than to run out and not have enough to finish a project.



## MAKE OR BUY?

Asking yourself this may save you a lot of time and money. There may be a part of your costume that would be easier, cheaper, and faster for you to purchase and modify rather than to make that same piece from scratch. For example: many characters wear solid colored shirts, jeans, or leggings. Instead of spending money on materials and tools and spending days making a custom pair of pants or a white t-shirt, why not buy these pieces? Clothing brands have streamlined the process of making clothing staples like shirts and jeans that cut the price and time spent on each item. The same idea goes for making props. Maybe there's a toy water gun out there that, with some modifications, would be perfect for that prop you need. But maybe this isn't the approach you want to take. Creating these staple pieces from scratch is a great way to level up your sewing skills. And if you're interested in competing in costume contests, making pieces from scratch will earn you bonus points with any judge.

**“IT WAS CHEAPER AND FASTER MODIFYING THESE LEGGINGS INSTEAD OF MAKING THEM FROM SCRATCH.”**



*I found these black leggings for \$8 online and modified them for my Gamora cosplay. It was cheaper and faster modifying these leggings instead of making them from scratch.*

## SIMPLIFY YOUR BUILD

Numerous costume and prop designs have seemingly infinite details. This may seem overwhelming at first until you start seeing that every prop and every costume is made up of a series of pieces. It may be helpful to think of your prop or costume like you would look at a completed puzzle. Look at your design and then visually break it into smaller pieces. For making a prop, for example, I like making the bigger, simpler pieces first and then adding the smaller, more complex pieces bit by bit. Some cosplayers like starting with little pieces and working their way to bigger pieces. Others like drawing plans for every part of the build before they start construction.



## GOAL SETTING

If you're planning on bringing a costume to an event, set goals and create a timeline for yourself. This will help keep you on track to complete your cosplay. Many cosplayers use organization or calendar apps to track their progress. I like using a planner to physically write in. Writing down my goals on paper and having the satisfaction of crossing them out as I complete them helps me feel less stressed about finishing a costume. Even though tracking your progress will help you finish a cosplay, life gets in the way sometimes. Even with the finest organization and goal setting, at some point you will experience what it's like to not get a costume done in time for a convention. It's frustrating! But remember: your costume will be there for you to finish when you get back.



**“I DECIDED TO TAKE MY TIME FINISHING MY STAR-LORD COSTUME INSTEAD OF HURRYING TO GET IT DONE FOR A CONVENTION. IT TURNED OUT MUCH NICER THAN IT WOULD HAVE IF I HAD RUSHED IT.”**

# TOOLS

The list of cosplay-friendly tools gets bigger constantly. As rapidly as cosplay-friendly tool lists are growing, you will be surprised with how few essential tools you need to start a costume. The cosplay community is clever when it comes to taking advantage of simple tools that can be used for crafting costumes in new ways. You'll find that many of the following tools are not only accessible, but also extremely affordable.

Here are some of my favorite tools for getting started on a cosplay project:

## **SHARPS & SHARPENERS**



Craft knives and scissors are a cosplay must-have. Investing in a knife sharpener will save you a lot of money on blades too!

## **WRITING UTENSILS & PAPER**



Paper of any kind is great for doodling designs, making patterns, and writing down ideas.

## **SELF-HEALING CUTTING MAT**



Whenever I'm cutting foam or another material, I always cut it on top of a self-healing cutting mat. Having a cutting mat like this will save your table from all the slicing and dicing you'll do.

## **ROTARY TOOL**



A rotary can be used to sculpt, smooth, or get rid of unwanted material. You can use it on foam, wood, and more!

## TOOLS CONT.

### SHOP CUPS



Disposable cups can be used for paint, rinsing, mold making, and more.

### HEAT GUN & GLUE GUN



You can use a heat gun to warm, shape, and seal foam and thermoplastic. A glue gun is used to extrude hot glue.

### SQUEEZE BOTTLES



Squeeze bottles are great for putting adhesives in. I use my squeeze bottles for contact cement (which comes in a can). Putting an adhesive into a squeeze bottle instead of leaving it in a can is a lot easier and less messy to work with.

### BRUSHES



Disposable chip brushes are great for weathering and applying adhesives on large surfaces. Smaller brushes are great for applying details. Having an array of different sized brushes for different purposes is useful for finishing your cosplay.

## TOOLS CONT.

### SEAM RIPPER



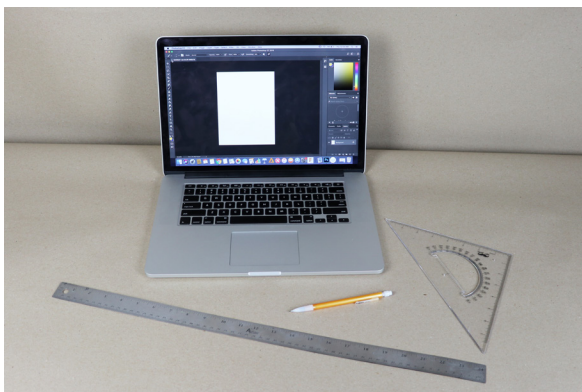
You will inevitably mess up a seam at some point. Use a seam ripper to gently take apart the stitch from the inside so you can re-sew a seam.

### SEWING MACHINE & NEEDLES



A must-have for sewing cosplay! Having a sewing machine will speed up your cosplay process, but it isn't absolutely necessary. If you don't have a sewing machine, that's okay! You can hand sew your projects using a needle and thread (although it is quite tedious). Nowadays sewing machines are cheaper and easier to use than ever. If you can get your hands on a sewing machine, I highly recommend getting one.

### MEASURING TOOLS



Whether you're using a digital device or a ruler, making straight lines and measurements is a great way to keep your cosplay looking fitted and symmetrical.

### PINS & CLIPS



Pins keep your fabric in place while you sew. While pins are necessary for many sewing techniques, using these small clips when you can will help save your fingers from getting pricked.

# MATERIALS



The possibilities for the materials that can be used for cosplay are endless. When I was new to cosplay, I made props out of cardboard until I could afford to experiment with other materials. Over the years, the cosplay community has invented ways to use existing materials in new, exciting ways. Here are some of my favorite materials that are durable, versatile, and lightweight.

## FOAM



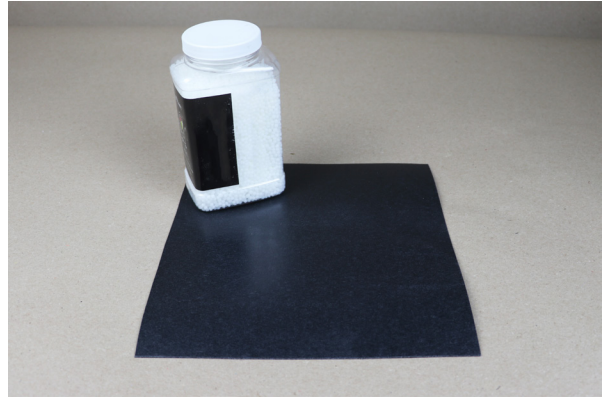
Foam is fantastic for making cosplay! Foam is my favorite material to make armor and props out of because it is inexpensive, light, durable, flexible, and buildable. My go-to is EVA foam, which can be bought in large sheets and in different widths. L200 foam is great if you need a more "bouncy" element to your costume. Upholstery foam can be used for padding or for making muscle suits. Foam clay can be shaped and molded freely. When it dries, it has the durability and rigidity of thick EVA foam.

## MATERIALS CONT.

### THERMOPLASTICS

---

Thermoplastic for cosplay comes in rigid sheets and can be molded with heat. Thermoplastic can be manipulated into almost any shape. When it cools, it becomes hard again. It's popularly used for armor, props, and other accessories. I personally don't use thermoplastic much because when it first became popular I couldn't afford it. By the time I could afford it, I preferred using EVA foam anyway.



### PVC & DOWELS

---

PVC can be bent with heat and is commonly used as handles for props, structures for wings, and much more. PVC, wood, and metal dowels can be used for adding structure and stability to props and costume elements.



### WOOD

---

Wood is popularly used for making props and accessories. Wood is durable and can be carved into a desired prop.



## MATERIALS CONT.

### PLASTIC WRAP & DUCT-TAPE

These materials are phenomenal for making easy, custom-fitted patterns.



### PAPER TOWELS, RAGS, & SHOP TOWELS

Cosplay can get messy. Like, REALLY messy! You'll need paper towels or reusable towels nearby. Shop towels can also be used for weathering and other painting techniques.



### ADHESIVES

There are all kinds of adhesives for different materials. Popular glues include wood glue, CA glue, contact cement, hot glue, fabric glue, and many more. Contact cement is a great adhesive for foam because it's strong and flexible. I prefer CA glue when gluing on smaller details. I use a combination of CA glue and hot glue for straps. Most adhesives have a labels that suggest examples of materials that work best with each formula.

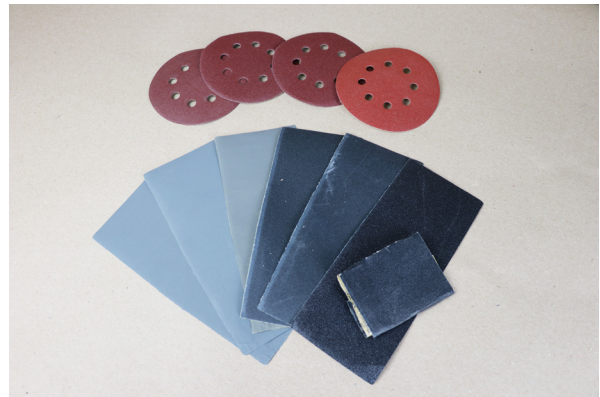


## MATERIALS CONT.

### **SANDPAPER**

---

Great for smoothing surfaces such as foam edges, 3D printed pieces, weathering holes in fabric, preparing hard surfaces for paint, and so much more!



### **FABRIC & THREAD**

---

There are endless fabric and thread choices to choose from. Having high-resolution reference photos of your character's costume will make it easier for you to decide what fabric you choose. When sewing, I prefer using stretch fabric. Stretch fabric is more forgiving and easier to use when creating your own garments. Using a non-stretchy fabric will often require more complicated construction methods. For thread, I use all-purpose thread in different colors to use for a variety of projects.



### **PLASTI DIP**

---

I use Plasti Dip spray to prime all my foam pieces before painting them. Plasti Dip is flexible and doesn't crack when applied to foam.



## MATERIALS CONT.

### **PAINT**

---

Many paint products work wonderfully for cosplay. Acrylic, enamel, leather, and spray paint are popular go-tos, but there are many others to choose from. Choosing a paint will depend on what material you are painting on and what design you are going for.



### **ELASTIC**

---

Elastic is an ideal material to use when strapping armor due to its flexibility. Using elastic on areas where you need extra mobility, such as shoulders, thighs or chest areas, works wonderfully.



### **WEBBING**

---

Webbing is great for strapping heavier armor that needs to stay in place and does not need any extra stretch room. It is ideal for strapping armor belts, prop gun straps, and more!



## MATERIALS CONT.

### BUCKLES

---

If you're holding together a lot of armor, buckles will make your life easier! There are dozens of different buckles that are amazing for strapping armor. They come in all shapes, sizes, aesthetics, and can be functionally hidden inside the armor if need be. Buckles are easy to install and use. They can be used with mesh, elastic, fabric, foam, and more. My personal favorite buckles to use when strapping cosplay are single-adjust side release buckles. Side release buckles are easy to use, install, and can hold a great deal of weight.



### INDUSTRIAL VELCRO

---

Applying industrial velcro to the straps and inside of your armor will keep your strapping sturdy and detachable! When applying velcro, you can attach the soft "loop" part of the velcro to the ends of straps and undersuits. Attach the prickly "hook" part to the inside of the armor. Putting the hook parts on the straps means the velcro is less likely to catch on an undersuit or get tangled in a wig when you're wearing it.



# SHOPPING FOR SUPPLIES



Now that you've planned your cosplay and know what materials you need to buy for your costume, where the heck do you get everything? Every cosplayer thinks about this and it can be intimidating when you are getting ready to spend money on materials for the first time.

Cosplayers in America are fortunate to have numerous craft stores in most cities. Those in rural areas, or those needing a specific product, may have to rely on online stores. On the next page is a list of popular stores that sell tools and supplies that cosplayers routinely use. I also included a list for cosplay-friendly online stores. The lists below certainly don't include every store that sells cosplay products. There are new stores opening continuously that offer cosplay supplies. Check online and your local area to see what you can find. Do your research and hunt for coupons and sales to find the best deals.

## **ONLINE STORES**

Amazon.com  
LuminsWorkshop.com  
CosplaySupplies.com  
TNTCosplaySupply.com  
Arda-Wigs.com  
CosplayFabrics.com  
Ebay.com  
Smooth-On.com  
Cosplayshop.be  
Sksprops.com  
[UK] Coscraft.co.uk  
[UK] Craftperium.eu  
[Spain] Feroa.com  
[France] Cosplaymat.com

## **BRICK-AND-MORTAR STORES**

JOANN Fabrics and Crafts  
The Home Depot  
Michaels  
Harbor Freight Tools  
Hobby Lobby  
Lowe's Home Improvement  
[Germany] Modulor  
[Germany] Boesner  
[Japan] ACOS  
[Japan] COSPATIO  
[Japan] Sekaido

## **THRIFT, THRIFT, THRIFT!**

Thrift shops, second-hand stores, and markets are goldmines for affordable cosplay materials. Specifically, if you are a fan of leather, or quality faux leather, thrift shops are filled with belts and garments that can be recycled for cosplay. I have created entire costumes from modified items I found at second-hand stores. If you have never tried it before, give thrift stores a chance! You will find some amazing bargains.



*Photo Left: I used thrifted items to make this renaissance festival costume.*

*Photo Right: Thrift shops are a goldmine for cheap leather goods.*

## SHOP YOUR CLOSET

Look in your closet! I can't tell you how many times I've found a perfect undershirt, leggings, or shoes in my closet that I've incorporated into a costume. You can feel good knowing you gave that old t-shirt or pair of pants a new life by recycling them for cosplay. I used some clothes I already owned to make this Fortnite costume.





First Aid

FIRST AID ONLY

343

**LET'S MAKE  
SOME  
COSPLAY!**

# PATTERN MAKING

When you learn how to make your own patterns, you can make ANYTHING! Pattern making is something I struggled with when I started making costumes in 2006.

At the beginning of my cosplay journey, I printed off paper craft patterns online. Then I learned how to scale them to my size and put them together. I would brush fiberglass on the paper pattern to make the papercraft structure sturdy. My 17-year-old self ended up flinging fiberglass all over my garage, including my Mom's car (sorry Mom). Fiberglass is extremely toxic, sharp, and sticky (seriously how can something be sharp AND sticky at the same time? Ew!). It also turns out fiberglass wasn't the most efficient way to make armor either. My paper pattern and fiberglass builds were so fragile, they splintered after wearing them for only a few hours. At the time, this was the cheapest and most accessible practice anyone knew about.

Thank goodness pattern-to-cosplay techniques have evolved!



*This Noble 6 cosplay I made was constructed using pepakura patterns and fiberglass. It was hot and uncomfortable!*



*This fibreglassed pepakura pattern needed a lot of finishing work before I could paint it.*

Today's pattern making and construction methods have developed to become more accessible, safe, and inexpensive.

Making your own patterns requires you to think in 2D. It can be difficult to think in 2D in order to make something 3D (a prop or costume) without a little help at first. I will show you some easy techniques to make patterns yourself. You'll be making your own patterns in no time!



*I made these muscle patterns to create a muscle suit for my All-Might cosplay.*



# HERE ARE MY FAVORITE, EASY WAYS TO MAKE CUSTOM PATTERNS

## PLASTIC WRAP & TAPE PATTERNS

Tape patterns work great for making both armor and sewn costumes.

Use plastic wrap or aluminum foil and place it around the limb or area where you need armor to go. Place pieces of duct tape around the plastic wrap. Make sure not to wrap it too tight so you can cut off the pattern later.



I prefer using aluminum foil for helmet patterns because it holds its shape when placing it on your head.



Next, sketch the shape of your armor on the duct tape with a pen or marker. If the armor piece you are making has a symmetrical design, you can draw a line down the middle so you only have to sketch half of the pattern.



Draw a line where you want your seam to go and make registration lines so you can reassemble the piece evenly when gluing it together.



Carefully cut the pattern off of yourself with scissors.



Now you have a pattern you can transfer onto foam or fabric!



When transferring your pattern, draw extra space around the edges if you need a seam allowance. If you're working with fabric, 1/2 inch is the general seam allowance commercial patterns suggest. Sometimes I will add 1 inch or more if I need more wiggle room. If you're using foam, it will depend on the thickness of the foam you're using. When using thicker foam, I will add an extra 1-3 inches to my connecting edges.



For using thinner materials like foam (2mm-5mm) or thermoplastic, you may not need seam allowance. If you are unsure how much seam allowance you will need, you can add a little more material than you think you need, fit it to your limb, and then cut away the excess material before gluing it together. It is easier to cut away extra material than it is to make a piece too small and add material later. You can also cut out a test strip of foam and wrap it around your limb to help measure how wide your piece needs to be.



Now that you have sizing out of the way, you can cut out your foam pieces and glue them together with contact cement.



Finish your piece by adding details and rounding your edges with a rotary tool.



## GARMENT PATTERNS



I love using existing garments for pattern making. You can use your best-fitting clothing to make your own patterns to use whenever you like. If a clothing piece is simple, like a t-shirt, you can use it as a pattern and trace it directly onto fabric. Just add seam allowance when you are cutting out the pieces, and then you are ready to sew! For more complicated clothing pieces, you can make your own patterns from existing clothing by using the same tape method.

### **MAKING GARMENT PATTERNS FROM TAPE**

Use a gentle masking tape that won't leave residue on your clothes. Apply tape along the seams and then to the rest of the garment.



#### **PRO TIP: SYMMETRY**

If the garment is symmetrical, you only have to cover one sleeve or pant leg in tape. When you're done making the pattern, you can flip the same pattern over and trace it onto your material for the opposite sleeve or leg.

Label the pattern and draw registration lines as you go so you know where to sew the pieces together.



Peel up the edges away from your clothes gently and use scissors to cut along the seams of the tape.



Carefully peel the tape pattern away from your garment and lay it down slowly on paper. Make sure to smooth the tape as you go so it doesn't stick to itself.



When you stick the tape pattern on to your paper, draw a 1/2-inch seam allowance around the edges.



## **USING A DRESS FORM**

Using a dress form or mannequin for pattern making is great for when you don't feel like wrapping your limbs in a tape cocoon. You can use tape patterns on your dress form instead! Draw the patterns on the tape and transfer them to your desired material.



## **MAKING PATTERNS FROM CLOTHES YOU OWN**

If a garment piece I'm making is relatively simple, I will lay down a garment I own straight onto my fabric and trace around it. I make sure to add seam allowance when tracing the clothes. Creating the new garment is as easy as cutting it out, pinning the edges, and sewing. Then I can add zippers, elastic, and other pieces as needed.



# SEWING

I was extremely intimidated by sewing when I started cosplay. Many sewing techniques intimidate me to this day! In my opinion, sewing a garment is more challenging than making a set of armor. Luckily, sewing machines, tools, and materials are easier to use than they ever have been. Here are some sewing tips and tricks I've learned that will help you along your own garment-making adventures.



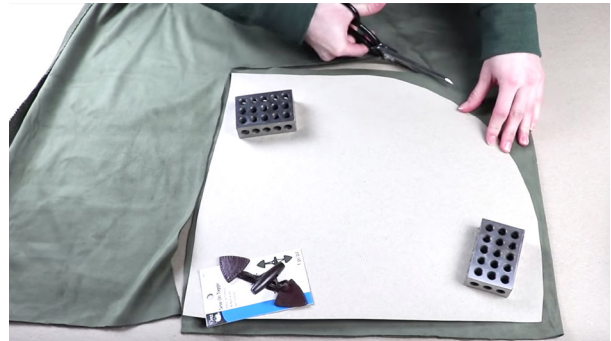
*HUSQVARNA VIKING OPAL 650*

## KNOW YOUR MACHINE

I know you're eager to start sewing your own cosplay, but take a few minutes and really learn how to use your sewing machine. Do all the research you can on it and get accustomed to the mechanisms it uses to work smoothly. It will save you time troubleshooting your sewing machine later!

## MAKING & BUYING PATTERNS

You can use the pattern methods I explained earlier to make your own sewing patterns. If making your own patterns does not appeal to you, many cosplayers like purchasing patterns at their local craft stores and modifying the designs. Most patterns you find at your local craft stores are inexpensive, have great instructions, and are easy to reuse for future projects.



## IRONING

Ironing hems and seams before and after sewing will help your projects look crisp and neat. Research your material and make sure your fabric is heat-safe prior to ironing.



## STRETCH FABRIC: A COSPLAYER'S BEST FRIEND!

Stretch fabric is more forgiving and easier to use when creating your own garments. Stretch fabric can compensate for wiggle room if you miscalculate a measurement by a few centimeters. These fabrics come in endless varieties, colors, and finishes.



## **2-WAY STRETCH FABRIC VS. 4-WAY STRETCH FABRIC**

2-way stretch fabric only stretches in two directions. 4-way stretch fabric (like spandex) stretches in 4 directions. Be conscious of how your pattern is being transferred to 2-way stretch fabric because it stretches less and will affect how the garment can be worn.



*2-way stretch fabric*



*4-way stretch fabric*

## **SEWING MACHINE FEET**

Sewing machines have detachable feet used for various sewing techniques. I most commonly use an all-purpose sewing foot. An all-purpose foot will be the one included with your sewing machine. Other common types of feet include a zipper foot, an embroidery foot, and a buttonhole foot. For working with thick materials, I like using a leather foot. There are tons of sewing feet out there that are great for different techniques.



## **STITCHES**

Depending on what material you are working with, you may need to use a specific stitch. Your sewing machine will likely have several pre-set stitches you can use. Experiment with different stitch pre-sets on scrap fabric to see what works best for the materials you are working with.



Stitches will already be familiar with this section and may skip it.

# ARMOR MAKING

---

It's time to make your own foam cosplay armor! The following pages will demonstrate how to make a set of armor from helmet to toe.



PHOTO BY:  
ACCOSPLAY

## MAKING A HELMET

Wrap the top half of your head with aluminum foil or plastic wrap. I prefer using aluminum foil because it holds its shape better around your head. Aluminum foil will also hold its shape while covering your head.



Apply tape over the aluminum foil where the helmet shape design needs to be.



Take it off your head so you can draw the seams and registration lines easier. Most helmet shapes are symmetrical. This means you only have to draw patterns for half of the helmet.



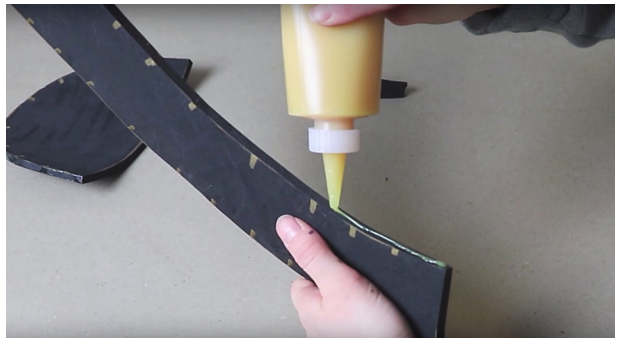
I like drawing seams in a way that will help the pattern pieces lay flat when I am transferring them onto foam. This will help your finished piece fit in the best way possible after you assemble it.



Trace the pieces onto foam and cut them out.



Glue them together using contact cement. Use your registration lines to line everything up.



Flip your pattern pieces over and repeat the process to make the other side of the helmet.



Glue both sides together and smooth seams with a rotary tool if needed.



Add your other foam details. You can make these details by drawing patterns from your helmet shape, transferring them to foam, cleaning up the edges with a rotary tool, and applying them to your helmet. (Check out pg. 75 for an in-depth guide for creating details).



Enjoy your helmet!



## MAKING CHEST & “BOOB” ARMOR



Making chest armor can be tricky. It's one thing to build chest armor, it is another challenge entirely to re-create the infamous 'boob plate' design that many of our favorite female characters wear. I remember being intimidated to make my first set of boob armor, but don't worry, it's easier than it looks! There are several ways to make boob armor, but here are some of my favorite techniques. If you are making a flat-chested armor design, you can skip the boob cup part of the tutorial.



## **USE YOURSELF AS A PATTERN**

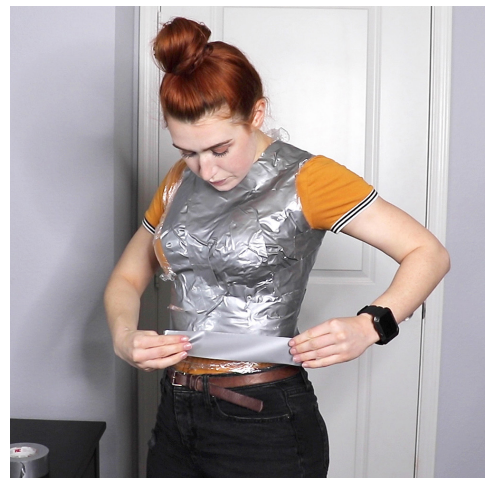
---

Make a pattern using your own chest. This is the same pattern-making technique that we discussed earlier, and it can help you make some armored boobies too!

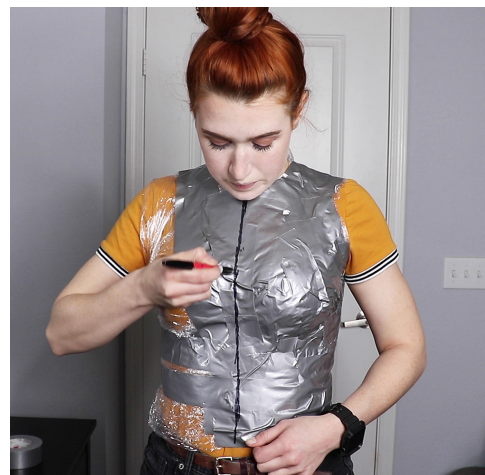
Use plastic wrap and wrap it loosely around your chest. I've had enough practice wrapping myself that I feel comfortable doing this. If you have trouble wrapping yourself, grab a volunteer to help you.



Apply strips of tape over the areas where you need to draw your pattern.



If your chest armor design is symmetrical, draw a vertical line down the center of your chest



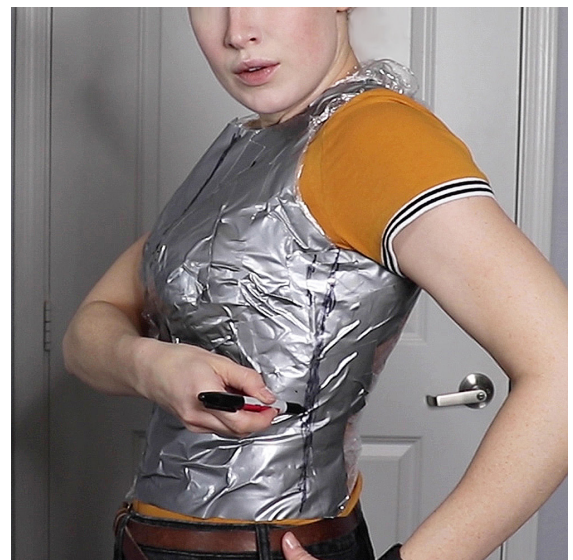
Now you can sketch the design onto yourself. When drawing the design for your boob armor, think about where you would like the seams to be. Since you're creating a pattern for a complex curve, you want your pattern pieces to be as flat as possible when they're cut out. This will make transferring the pattern onto foam and gluing pieces together easier.



Label your pattern pieces and make registration marks so you know how to assemble your parts when you transfer them to foam.



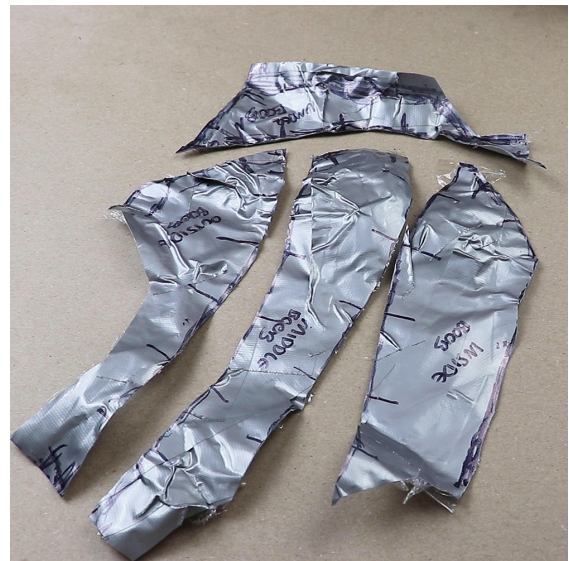
Draw a line where you would like to cut the pattern away from yourself. I like putting a vertical seam under my arm and on top of the shoulder where it is less noticeable. This is also where a lot of armor designs have seams.



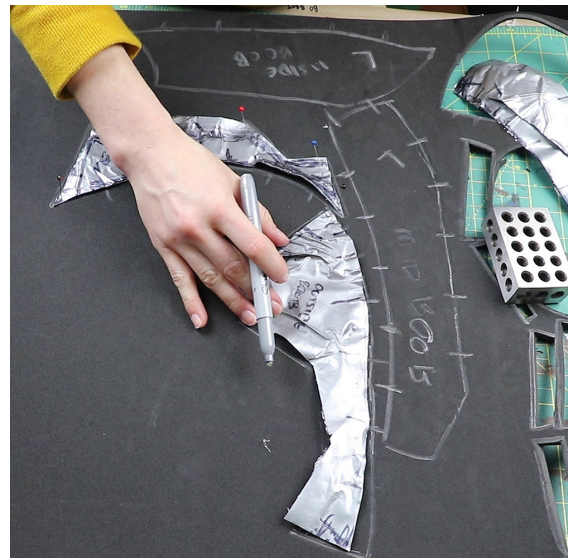
Use scissors to gently cut along the seams and free yourself from your plastic-y tape cocoon.



Clean up your seam lines and cut out your pattern pieces.



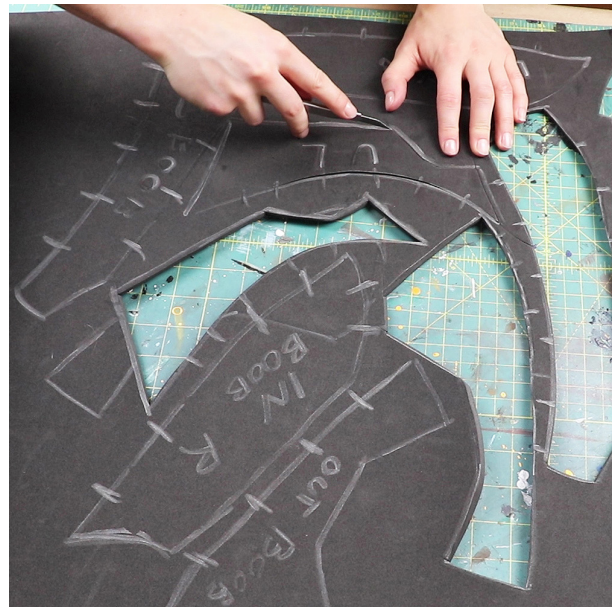
Trace your pattern onto foam using a marker.



To duplicate the pattern for the second cup, just flip the patterns over and trace it onto foam again. I've found it is helpful to draw the registration lines and label everything on foam with marker as I go so I can keep track of which piece goes where.



Cut out the pieces.



Glue everything together with contact cement. Use your registration marks to line everything up as you go.



Shape your pieces using a heat gun to warm the foam. This prepares the foam for shaping. While the foam is still warm, shape the cup pieces using your hands or a round object. I like using this acrylic Christmas ornament from my local craft store, but you can use anything that has a similar shape (even your fist will work).



Often times when making armor, seam lines can ruin the overall appearance. Thankfully, there are easy ways to clean these up to take your armor to the next level. Take some flexible caulking and squeeze it into the seams. Use your finger or a flat tool to scrape along the seam to make it level.



Smooth the seams with a rotary tool.



Your boobie cups are done!



## **“BULKY” CHEST ARMOR**

Here’s a good way to make a set of chest armor that has a “bulkier” shape.



Cut out a long piece of pattern paper and cut out a hole in the middle big enough for your head to stick through.



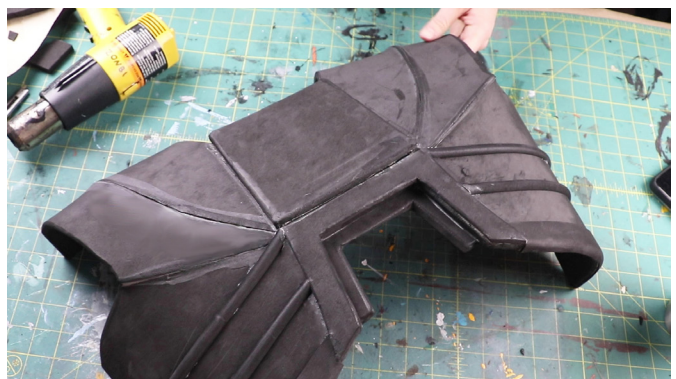
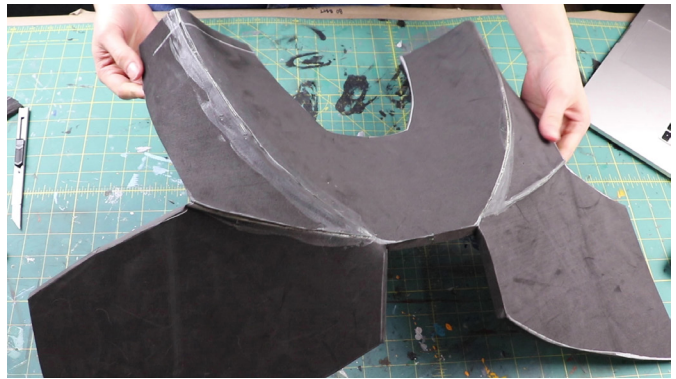
You can draw your chest pattern onto one side. If needed, you can fold darts into the paper to achieve the shape you want.



When you finish drawing your pattern, cut it out and transfer the pieces onto foam.

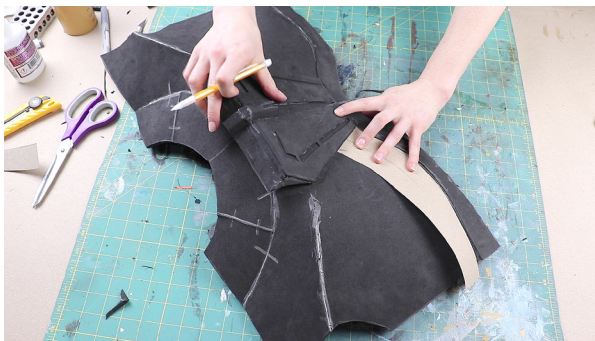
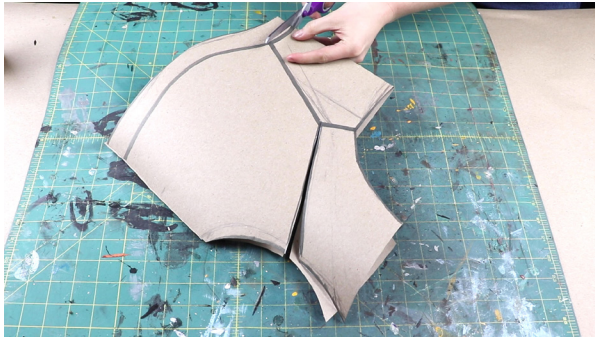


Glue your pieces together, add the details, and enjoy your armor!



## BACK ARMOR

You can make a back piece using the same methods. If you're making patterns by yourself and don't have a partner to help draw your back pattern, you can draw it on a flat surface. Then you can test fit the piece and make adjustments as needed.



With practice, you'll be making all kinds of amazing back and chest pieces in no time!



# MAKING HAND & FOREARM ARMOR

Plastic wrap your forearm.



Tape the areas where your design needs to go.



Sketch your design.



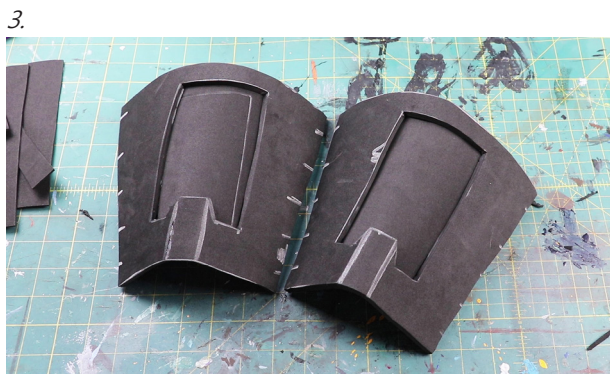
Repeat the same process with your hand armor.



Transfer them to foam. For gauntlet pieces, I prefer to go with a thinner foam, such as 5mm-2mm, to help with hand mobility.



Add details and glue the fore arm together.



## MAKING GLOVES FOR GAUNTLET ARMOR

Sometimes I prefer to buy cheap tactical gloves online and attach my gauntlet pieces to it. However, when a cosplay calls for gloves to be a specific color or texture, I like making my own gloves.



*Tactical gloves used as a base for one of my Gears of War costumes.*

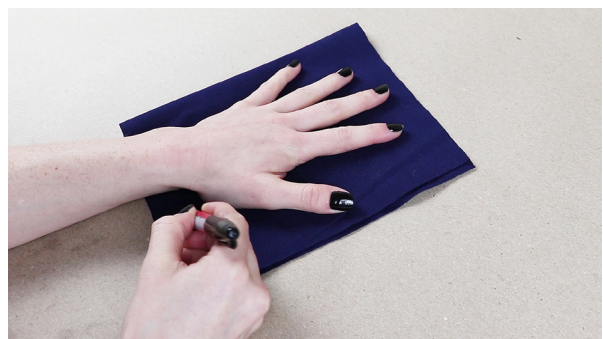


*Hand-made gloves and gauntlet armor for my Gordon Freeman costume.*

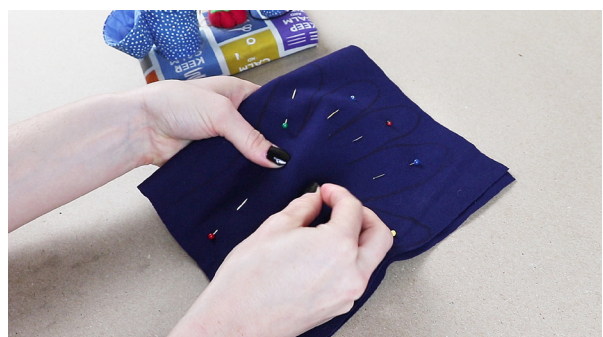
An easy way to make a glove is to fold a piece of 4-way stretch fabric in half so the outside of the fabric is facing in on itself.



Trace your hand onto the fabric with a pen, marker, or fabric chalk.



Pin the inside of the glove.



Sew the outside edges of the shape with a sewing machine.



Cut out the glove.



Turn it inside out.



There's your glove!



Now you can attach your gauntlet pieces to your glove and enjoy your cool, armored hands



## MAKING SHOULDER ARMOR

For bulky “non-shoulder-shaped” shoulder armor, I often draw the approximate shape on paper first. Then I can transfer the pattern onto EVA foam, shape it with a heat gun, and add details.



If your shoulder armor is more form-fitting, this method works great:

Plastic wrap the top half of your chest, back, and shoulder to give a steady base to apply duct tape.



Tape your shoulder where your design needs to go.



Sketch your design.



Make seam and registration lines



Cut it out.



Transfer the pieces to foam. Flip the pattern over and trace it to make your second shoulder.



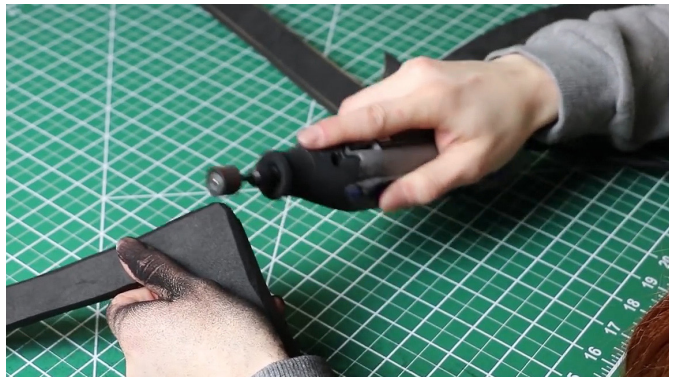
Glue your pieces together.



Add details.



Use a rotary tool to smooth edges.



Your shoulders are done!



## MAKING SHIN & THIGH ARMOR

I get a lot of questions on how to make leg armor. Not only are shins and thighs a weird shape, you also have to fit your foot through them. There are a lot of ways to make shin and thigh armor that will make creating them and fitting them much easier. Here are some of my favorite ways to make shins and thighs.



Plastic wrap your shin and thigh.



Tape them where your armor will be.



Sketch the designs.



Make seam and registration lines.



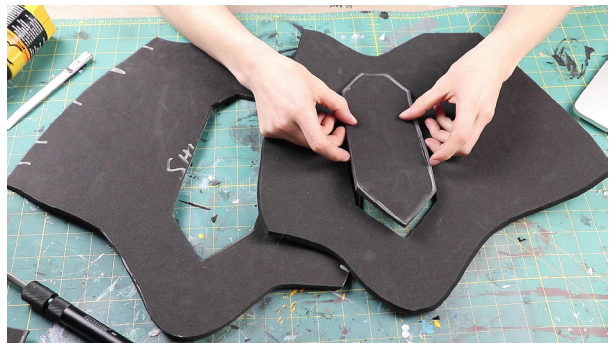
Cut them out.



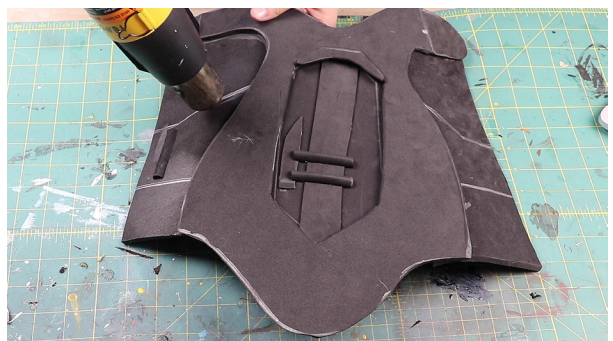
Transfer the patterns to foam.



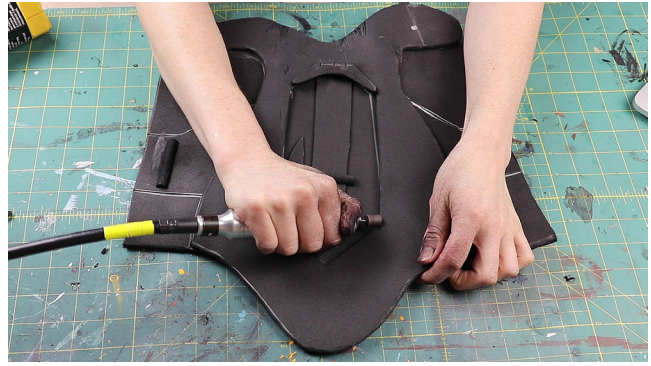
Flip them over and trace them again for your opposite shin and thigh.



Add details as needed.



Round the edges with a rotary tool.



After you add the details to your thighs and shins, you can either connect the final seam now or wait until after it's done being painted. For the shins below, I decided to paint them first and add the stretch fabric to the back so I had more wiggle room. For more ways to strap leg armor, you can skip ahead to the strapping section on page #97.



Here's a shot of the strapping I did for the back of the shins.



And here's a picture of the shin armor completed with its final paint job and weathering!



## MAKING SHOE COVERS & ARMOR

Making shoe covers is a handy way to reuse your favorite pair of shoes for cosplay. You can change the color of a shoe, attach armor, buckles, zippers, or whatever you need. First, I'll cover how to make shoe covers, then we'll attach some armor onto them.

Pick out shoes you want to wear with your cosplay. Wrap some aluminum foil around them to start making your pattern.



Wrap duct tape around the aluminum foil.



Draw on seams and registration lines if needed.



Cut out the pattern pieces.



Trace the pattern pieces onto fabric.



Cut out the traced pattern from your fabric.



Clip or pin the seams, and then sew them together.



There's your shoe cover!



You can use pieces from your existing shoe cover pattern to make shoe armor. For example, I'm cutting this pattern to make toe armor.



Transfer the pieces to foam, cut them out, and glue them together.



Now you can glue them to your shoe cover. When attaching the armor to a fabric with a slick surface, I like using super glue. With woven materials you can use hot glue. Using velcro or snaps is also an option. That choice is up to you!



# ADDING DETAILS

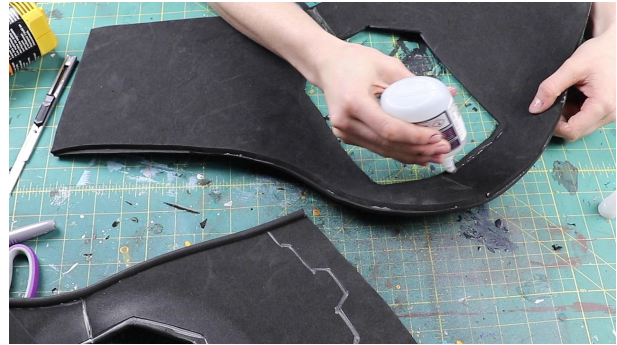
This is where your pieces will start looking less like blocks of foam, and more like cosplay!

## ADD DETAILS BEFORE OR AFTER IT'S WEARABLE

You can decide whether or not you would rather add additional details before or after the piece is wearable. For some designs, it's easier to add details once the armor is constructed. However, you may find it easier to lay the piece flat and add details before forming it into a wearable piece.



*I decided it was easier for me to add this raised detail on the shin piece after it was constructed.*



*On these thigh pieces it was easier for me to add the details before gluing the seams together.*

## SUBTRACTIVE DETAILS

### RECESSED DETAILS

Many designs call for recessed details. To make these, you can use the pattern you already made for your base piece. You can draw where you want your recessed piece on the pattern, cut it out, and then trace it onto your foam piece.



After you cut out the piece you want recessed, flip over your base piece and glue a piece of EVA foam to the back where the hole is. I prefer using thinner 2mm or 5mm for recessed details because it takes up less space inside your armor. Less foam poking you from inside your armor will make it comfier to wear!



## **USING TOOLS TO MAKE RECESSED DETAILS**

You can use a small craft knife, rotary tool, or a heat knife to cut details into your armor. I use a marker to draw where I want details to go first before going over it with my tool of choice. If you're using a craft knife to etch details into your foam, use a heat gun on the details once you're done. This will make the detail open up and become more visible.



## USING A HEAT GUN TO MAKE DETAILS POP

A great trick for finishing up your recessed details is to use a heat gun on them. A little touch of heat will cause the cut-in details to tighten up and become more pronounced. As an added bonus, any foam fuzzies created in the cut will also be cleaned up.



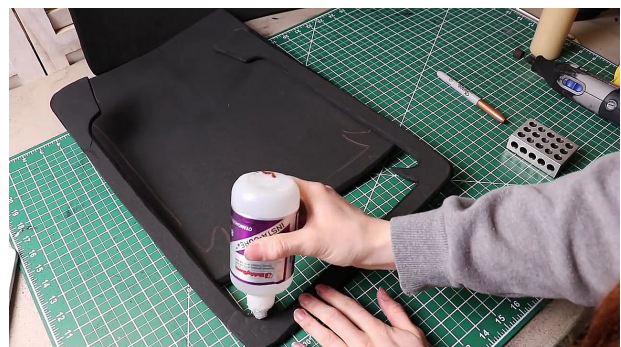
## ADDITIVE DETAILS

Additive details are the ridges and "raised" parts you see on your armor's design. You can use the pattern you made for your base piece and draw where you would like your additive details to go. Then you can cut out the pieces, trace them onto foam, and add them to your base piece.

If your design calls for it, you can use a rotary tool to smooth the edges before gluing it to your piece.



To apply smaller additive pieces, you can use super glue instead of barge. I've found that using super glue for these smaller pieces makes my work look neater and is much faster than waiting for barge to cure.



## USING PRE-MADE BEVELS & DOWELS

Many online cosplay supply stores sell pre-made bevels, dowels, and half dowels to decorate your cosplay with. Before these existed, cosplayers had to carve their own bevels and dowels! These pre-made pieces are well worth the cost and will expedite any build.



## GOOGLY EYES AND MORE!

Don't be afraid to incorporate non-foam items as additive detail pieces. Googly eyes are a fantastic way to add rivets to your cosplay. I have also used shampoo bottles, water bottles, condiment lids, and plumbing hoses to add details to props and costumes.



## 2MM FOAM LAYERING

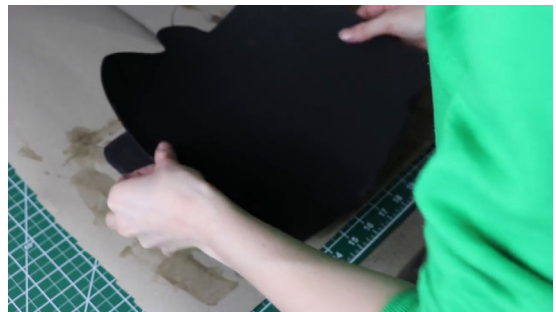
Some armor designs look like they are cast from a singular piece. To fake this with foam, create your foam piece completely with additive and subtractive details.



Then carefully apply a piece of 2mm foam over the entire piece using contact glue.



Then you can use your fingers to press the 2mm foam around all the additive details that are underneath.



The downside of using this method is that 2mm foam is delicate so you really have to take your time and be careful when using it this way.



This method takes practice! I suggest practicing with a smaller piece and getting the hang of this before moving on to larger pieces.



# PROP MAKING

Now that you know how to make a costume, it's time to learn how to make some props! From planning to painting, you can use the knowledge you've gained from making a cosplay to create your own cosplay props.



## MATERIAL CONSIDERATIONS

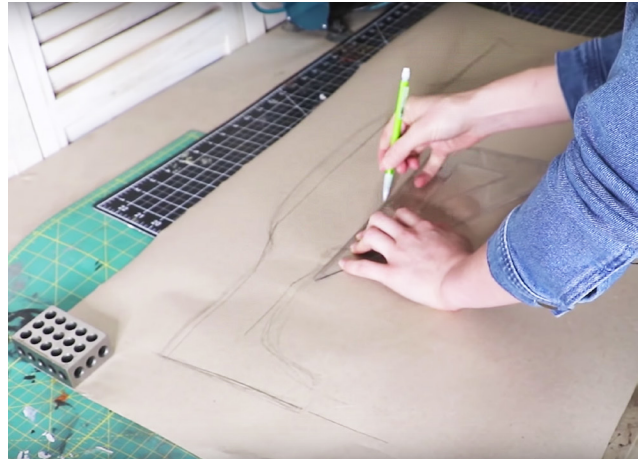
Consider what material to use for your prop. Ask yourself: Will I be traveling with this? Do I need to build it in a certain way so I can fit it in a suitcase? If I plan on carrying this around for a whole day, how light does it need to be?

## USING EXISTING PARTS

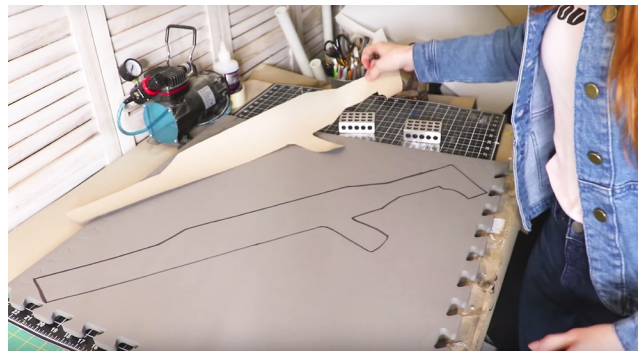
Look at your prop design. Are there any parts of it that can be made from existing parts? See if the design has similar shapes of plastic bottles, valves, PVC pipes, handles, or other found items. You can incorporate these pieces into your prop to make your build easier and more functional.

## CONSTRUCTION

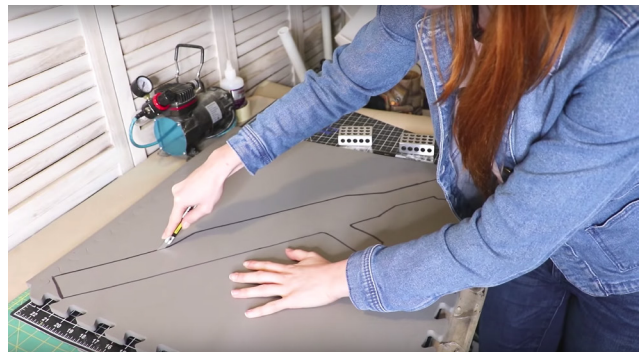
Start creating a prop just like you would a costume. You can print off a prop's design to help you map out your pieces, or you can draw the design yourself.



Trace your base design onto foam. If you need the body of your prop to be wider, you can add more pieces to the middle.



Cut out the foam pieces.



You may need to trace a pattern several times if you plan on layering pieces to add width to your prop. Make sure the foam is as smooth as possible before gluing everything together. If you're using EVA floor mats as a cosplay material, you can smooth the inside "bumpy" side off with sand paper like I did here.

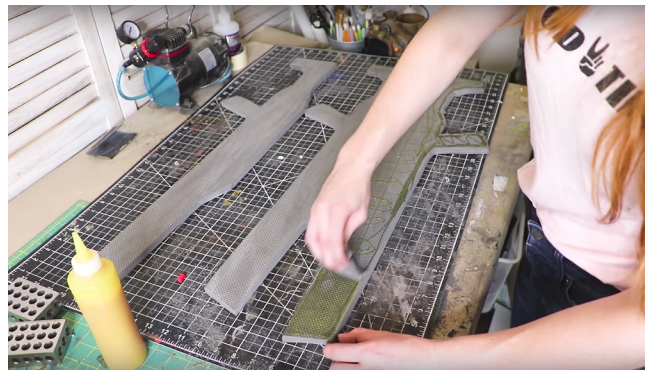


# PRO-TIP STRUCTURAL SUPPORT

If you have a larger prop, adding a dowel rod inside will make it sturdier and more durable. An easy way to add a dowel is cutting a trench in the inside halves of your prop. Then you can glue a metal, wood, or PVC dowel into the trench.



Glue your traced foam pieces together.



I generally use a band saw to clean up edges on props. Having a band saw is convenient, but you can also use a sharp craft knife and a rotary tool to clean your edges.



Craft the other details and apply them to the base of your prop.



I use rotary tool attachments to carve recessed details into my props as needed. Small craft knives also work for cutting and carving details. Depending on your prop's design, you can add scuffs and dents with your rotary tool too.



And now your prop is ready to prime and paint!





PHOTO BY:  
ACCOSPLAY

# PRIMING

You're almost ready to prime! To seal your foam before priming, use a heat gun on a low heat and go over your foam prop or costume. The heat seals the foam's pores and will give it a smoother finish when painting. Using a heat gun will open up any carved details you may have made in the design. You may even see the foam change from a dull finish to a slightly shiny one.

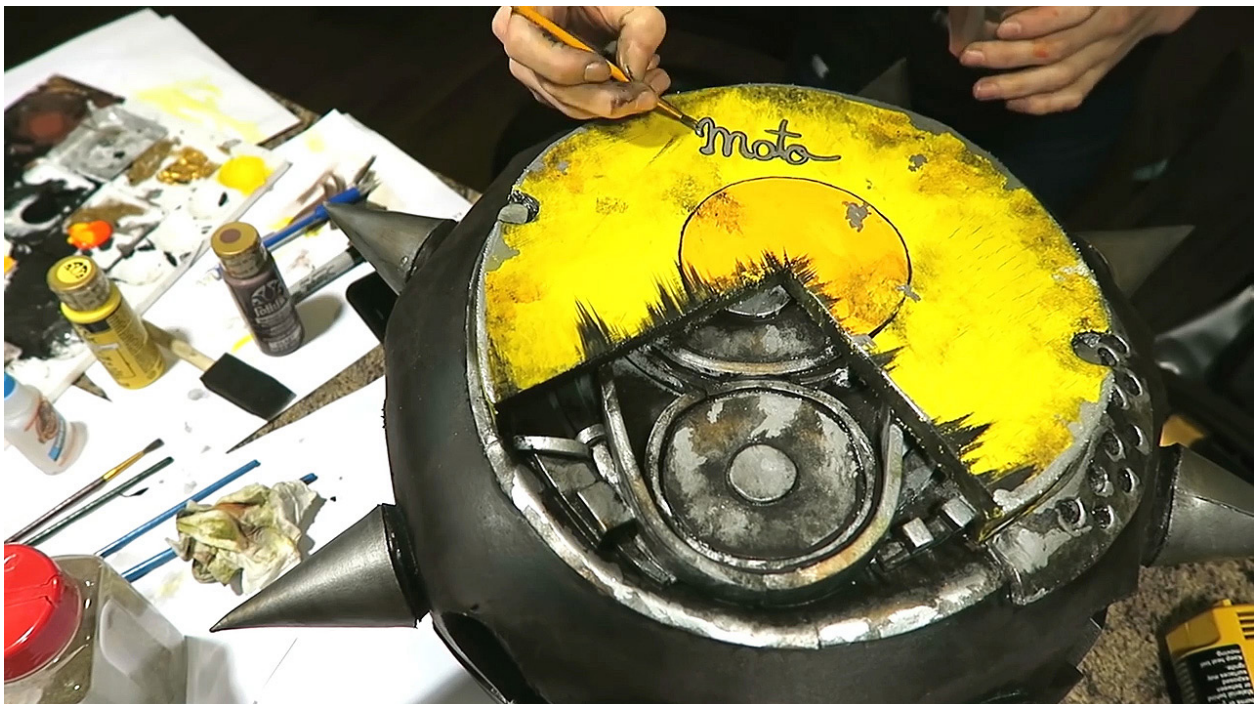


I use Plasti Dip to prime all of my foam builds. Plasti Dip is not only flexible, but it creates a smoother surface to be painted on. Using warm Plasti Dip will give you an even smoother finish. If you live in a cool climate, running your can of Plasti Dip under warm water for a minute will warm your Plasti Dip to an adequate temperature.



# PAINTING

Many paint products work wonderfully for cosplay. Acrylic, leather paint, enamel, and spray paint are popular go-to paints. Choosing a specific paint will depend on what material you are painting and what look you are going for. For foam projects, using rattle-can paint and acrylic paint are my personal favorites. Rattle-can spray paints work great for quickly achieving a consistent color and texture for an armor set. When using an airbrush I will use a sprayable acrylic or enamel to cover a large surface. Reading application instructions for the paint you are using will help you get a smooth, even, and vibrant finish.



## FINDING & MIXING THE RIGHT COLORS

So now it's time for you to paint and find the right colors to use! After looking at your reference photos, you may be lucky enough to find the exact paint color you need. Craft stores supply almost every color imaginable. For those strange, unique colors you can't find in a store (like a yellowy-brownish-orangey color that doesn't come in a bottle, for example) you can mix your own colors!



I mix my own colors using trial and error. You can use small amounts of similar colors and keep mixing on a paper plate or palette until you get the color you're looking for. If you're using a hand-mixed color on a large surface, you can re-create your colors! Re-create mixed colors by recording what paints you used and how much of each paint you used to mix (for example: 3 drops of gold paint, 2 drops of brown paint).

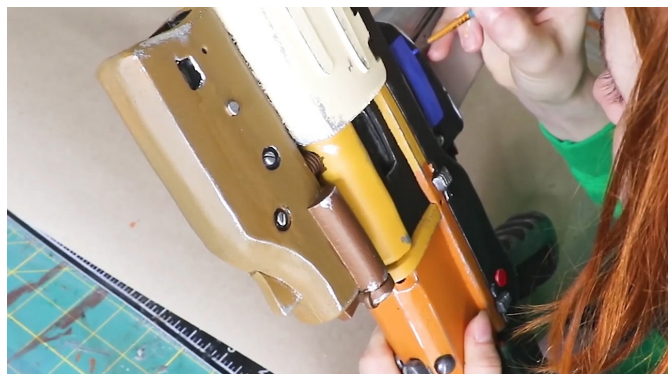


Alternatively, you can remix colors by eye and add paint until you visually achieve your desired color. There is a lot of trial and error when it comes to mixing your own colors and it's okay if it takes you awhile to find the color mixture you're looking for! You can also test different shades of paint on a test piece to see how it looks when it dries. Many acrylic paint colors dry lighter and change color slightly depending on what surface they're being used on.



## BRUSH, AIRBRUSH, OR SPRAY PAINT?

Using a paintbrush works wonderfully for detail work, adding paint texture, or painting smaller areas. You can certainly use paintbrushes for larger areas too, but you may have to apply it in several layers, which will take longer to achieve an evenly applied base color.



Spray paint works well for painting large areas evenly.

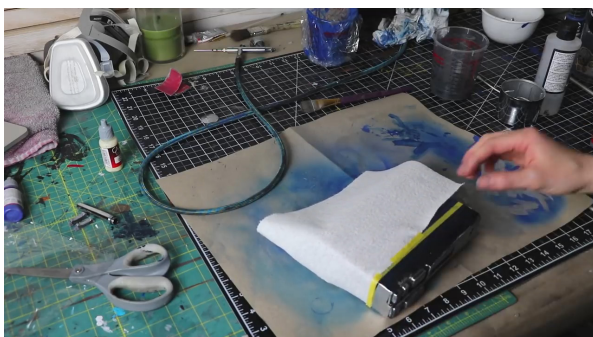


An airbrush can be used with acrylic paint, enamel paint, and more! An airbrush isn't a necessary tool for paint application, but it will accomplish a unique look that only an airbrush can provide.



## MASKING

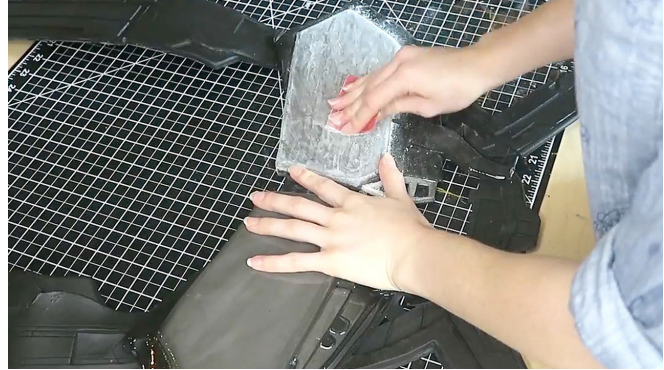
You can use masking tape to hide parts of your piece you don't want to be a certain color. To save masking tape, you can use paper or shop towels to mask areas of your armor as well.



## PAINTING A METALLIC FINISH

Creating a metallic-looking surface can be tricky! Here are some tips on how to make some convincing metallic surfaces.

Make sure the surface is smooth and neat before priming! Any bumps or seams on your piece will become more visible after being painted metallic. For foam pieces that can't be sanded, take the time to assemble your pieces neatly. This will help your metallic paint look more convincing. If you are working with a sandable surface, such as plastic, sand the surface until it's smooth prior to priming it. Once your piece is assembled to your liking, you can use Plasti Dip to prime it!



Using filler primer will help the surface become even smoother. You can spray on filler primer, let it dry, sand the surface, and repeat the process until the surface is smooth.



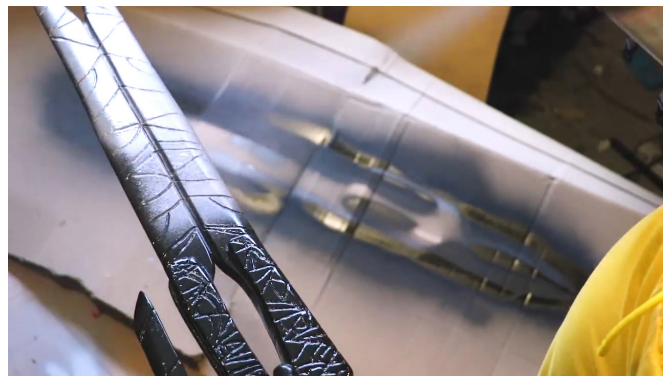
Sandable primer works extremely well, but it takes awhile to dry. If you sand the surface and you notice primer is sticking to your sandpaper, let it dry for awhile longer before sanding again.



Once the surface is sanded and primed, paint the surface black. If you're going for an extra shiny look, use a glossy black spray paint to prepare your piece. Using metallic paint on a black surface makes your piece look more vibrant.



Apply your metallic paint of choice. Rattle-can and airbrush enamel metallics will give your piece an extra shiny metallic surface. If a cosplay design calls for a metallic surface with a duller shine, acrylic metallic paints are an excellent choice.



# WEATHERING

It's time to tell a story with your cosplay. Adding wear and tear will make your costume look lived in. Think about your character and the environment they live in. Are they a squeaky-clean researcher who is afraid of getting their uniform dirty, or are they a post-apocalyptic warrior who fights monsters in the wasteland every day? Weathering your cosplay is a great way to tell your character's story. When weathering, think about how dirt, rust, mud, water, or other byproducts would affect how their outfit looks. To get the effect you want, you can research how certain environments affect clothing, metal, plastic, and other materials that the character wears.



Here are my favorite tools, materials, and techniques for weathering cosplay.

## PAINTS

My favorite colors for weathering include browns, tans, whites, yellows, blacks, grays, oranges, and siennas. I like using acrylic and oil paints for weathering because I can maneuver them, mix them, apply them, and wipe them away with ease.



## BRUSHES

For larger, dirt-covered areas and areas where I will be scrubbing the area with paint, I use chip brushes so I don't ruin my nicer brushes. For smaller, more delicate nooks and crannies, I like using a smaller, higher-quality brush.



## PAPER TOWELS

Paper towels will help you to wipe or dab away paint. Rags, an old t-shirt, or shop towels will work fine too. I find that using higher-quality paper towels ensures that no paper fibers are left behind when wiping away pigment.



## WEATHERING ARMOR



## **PAIN T WASH**

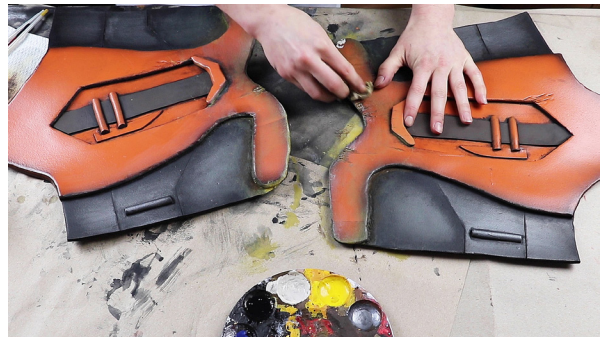
There are dozens of techniques for weathering armor. One of the easiest weathering techniques is to apply a paint and water mixture over your piece with a brush. Just mix your desired weathering colors with some water to create your own wash.



After the paint is applied, you can dab and wipe some of the mixture off with a rag or paper towel. Depending on what effect you are going for, you can either leave more of the mixture on or wipe most of it away.



The paint will stick to creases and corners of the design and will also leave a dusty hue over areas of the piece. You can do multiple layers of different colors to achieve a different look.



If you need a more focused and precise concentration of rust or dinginess, you can use your brushes, paint, and water to apply detail. Like using a wash, adding more layers to areas can give you some interesting effects.



## SCRAPES & DINGS

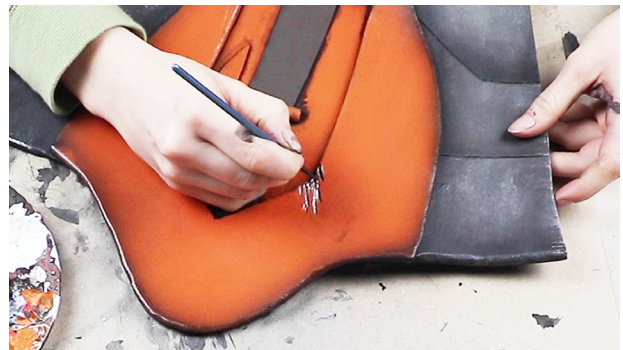
---

If you are going for a scraped, damaged, metal look, this technique works great!

You'll need a chip brush and your favorite silver paint. For a more subtle look, you can use a small amount of pigment and brush over the raised edges of your prop or armor. This will give it the effect that the paint has worn off the area and metal is shining through from underneath.



For more intense scrapes, chips, or dings, I use a smaller brush and paint silver exactly where I want the metal to go. Some prop makers choose metal enamel paints for this effect. Personally, I like spraying metallic spray paint into a cup and using a small chip brush to brush on scrapes.



You can use a silver marker to add scrapes and dings too. These markers are cheap, and the pigment looks great on armor! You can make these scrapes "pop" by using a black marker to draw around the edges.



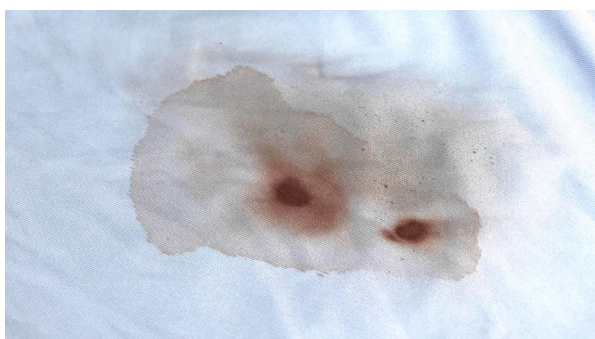
## WEATHERING FABRIC

You can get really creative with weathering fabric too. You can use paint, tea, coffee, costume dirt, and so much more! My favorite way to weather fabric is using a small amount of acrylic paint on a chip brush and sweeping over areas where dirt would naturally collect. Most fabrics are porous, so I do not use water as generously as I would when weathering armor. However, if you are creating a mud effect, or dirty water that has settled into the material, using more water works wonderfully. I often take a scrap of fabric and experiment with weathering techniques before moving on to weathering my cosplay. Applying weathering colors on your finished garment should be done deliberately because it is harder to correct your mistakes on fabric later.

Distressing fabric with sandpaper is another way to make a garment look aged or lived in. You can sand by hand on smaller places or use a rotating sander to create larger holes.



Using a combination of these techniques can create some convincing effects.



# STRAPPING ARMOR

Here's where all your hard work comes together. After all, you will only have a pile of cool-looking parts until you can put it on and make it a wearable costume. There are several ways to accomplish this, but here are some of the fastest, easiest, and strongest ways I have learned to strap armor.



## ELASTIC

Elastic is an ideal material to use when strapping armor due to its flexibility. Using elastic on areas where you need extra mobility, such as shoulders, legs, or chest armor works wonderfully.



## WEBBING

Webbing is a strong fabric woven as a flat strip that is commonly used in place of rope. Webbing is a reliable load bearing material and works great for strapping heavier armor that needs to stay in place and does not need any extra stretch room. Webbing works well for strapping pieces like belts and prop gun straps.



## BUCKLES

If you are holding together a lot of armor, buckles will make your life easier! There are dozens of different buckles that are amazing for strapping armor. They come in all shapes, sizes, aesthetics, and can be functionally hidden inside the armor if need be. They can be used with mesh, elastic, fabric, foam, and more. My personal favorite buckles to use when strapping cosplay are single-adjust side release buckles. These buckles are easy to install and can hold a great deal of weight.



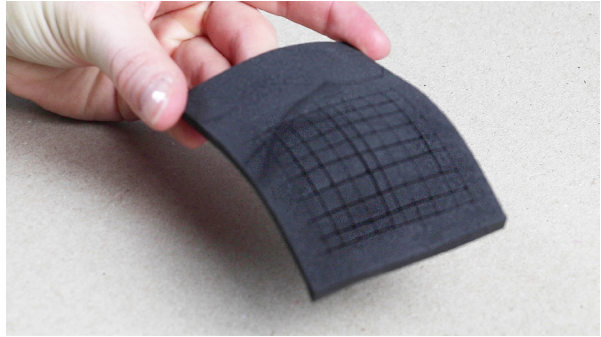
## INDUSTRIAL VELCRO

Applying industrial velcro to straps will keep your strapping sturdy and detachable! When applying velcro, I like attaching the soft "loop" part of the velcro to the ends of straps and on fabric undersuits. I attach the prickly "hook" part to the inside of the armor. Putting the hook parts of the velcro on the armor instead of on a fabric undersuit means the velcro is less likely to catch on fabric or get tangled in a wig when you're wearing it.



## SCORING & SANDING

You can make your straps stronger! If you texture or “rough up” the foam surface before gluing down a strap, it will strengthen the bond by adding more surface for the strap to stick to. I like using a craft knife or low-grit sandpaper to score the foam before applying straps.



## ATTACHING STRAPS

Decide what buckles or velcro fit your needs best and where you would like the attachments to go.



Measure how long you would like your straps to be and cut them to size.



Now you can attach the straps to your costume! Here are some different techniques to attach straps to a costume.

## THREAD

---

Thread is your best friend when attaching velcro or buckles to an undersuit or other fabric pieces. A reinforced stitch keeps a sturdy hold and will stretch with your fabric. I also use thread to attach velcro to elastic and mesh straps.



## HOT GLUE

---

High temperature hot glue is a strong, accessible, and an inexpensive way to glue your straps to armor.



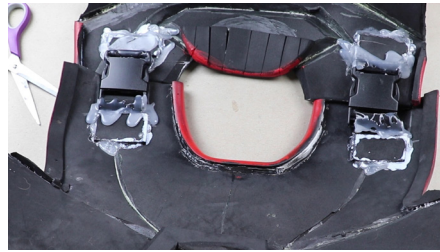
## CA GLUE

---

CA glue (aka cyanoacrylate, or super glue) is another glue you can use to reinforce a strap's hold when attaching it to foam.



## THE FOAM SANDWICH



I'm a freak about reinforcing my straps. After all, straps are the key to wearing a cosplay, and no one wants to have a wardrobe malfunction. Making a foam sandwich with straps and foam gives me peace of mind and more layers of protection for my straps. Here's how I do it.

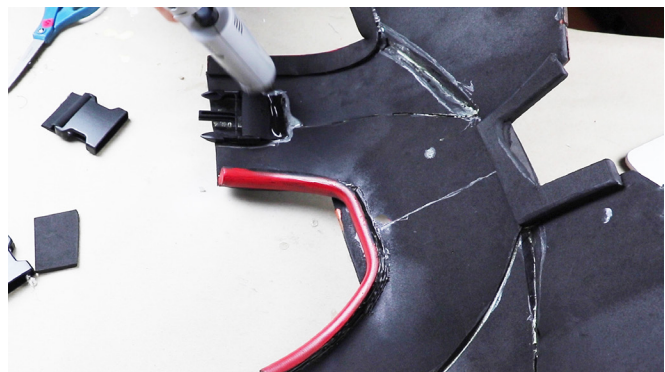
Pick a spot where you want your strap to go and apply hot glue.



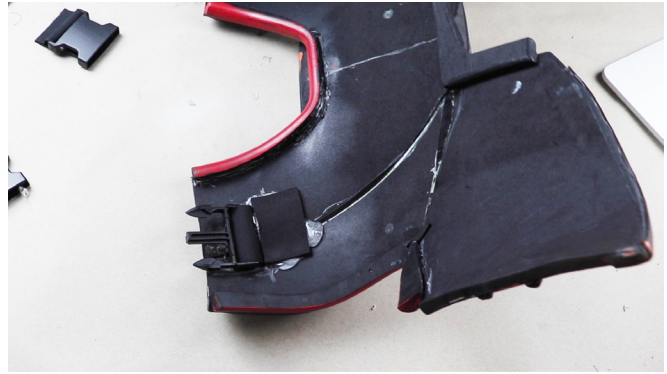
Place your strap and press down gently.



Apply more glue on top.



Use a piece of 2mm foam or mesh and gently place it on top. Let it dry.



Apply super glue around the edges



There's your strappy, foamy sandwich. I know it looks crazy, but it works! I have never had a strap pop off after making a foam sandwich. Try on your armor with the straps and make sure it fits. Your future self will thank you for making sure your straps are comfortable. If something doesn't feel right, you can always fix it. It is better to take care of it now than worry about it the day you have to wear it.



PHOTO BY:  
ACGOSPLAY

## HOW TO STRAP SHIN & THIGH ARMOR

Here are my favorite ways to make shins and thighs easy to take on and off. You can experiment with combining these different methods to discover what works best for you.

### ELASTIC FOR LEG ARMOR

If you prefer straps going across the back of your shins or thighs, try elastic. You can also combine velcro with elastic straps to get in and out of your cosplay quickly.



### STRETCH FABRIC FOR LEG ARMOR

You can make shin and thigh armor more flexible by adding a few inches of stretch fabric on the seams.



An advantage to using stretch fabric and elastic is having more flexibility when moving and walking. This will make your cosplay-wearing experience more comfortable.

### VELCRO FOR LEG ARMOR

You can attach your leg armor directly to an undersuit, shirt, or pair of pants using velcro. Depending on your design, you can also attach velcro to the seams of your thigh and shin armor. When you are ready to get out of a costume, all you have to do is peel the seam apart, or peel them off your undersuit.



# WIGS

If you decide to wear a wig with your costume, these basic wig wearing and styling tips will help complete your look.



## USING A WIG CAP

Using a wig cap will help keep those fly-aways out of your face and will keep your hair from popping out from under your wig. Putting up your hair before fitting it under a wig cap will make it more manageable.



If you have longer hair and need to hide it under a wig, you can wrap it around your head in sections using pins.



You can also section your hair in two braids and pin them around your head like a halo.



Put on your wig cap over your hair.



## PUTTING ON A WIG

Before putting on a wig, adjust the straps. Most wigs have adjustable straps in the back that change how tight or loose the wig fits. Experiment with sizing and see what works best for you. Make sure you don't wear your wig too tightly because it can give you a nasty headache!



I put my wig on from the front, pull it over the top of my head, and adjust it as needed.

## STYLING A WIG



You can style your wig by using hair spray, styling gel, bobby pins, and other hair styling tools like scissors and shears. Purchasing a heat-resistant wig means you can use a straightener or curling iron on a low heat to style your wig. Wigs will often come with instructions that tell you what heat is the best for styling.

---

Some wigs are shiny. If you prefer a more natural look, you can use dryer sheets to dull the shine. To dull the shininess of a wig with dryer sheets, gently rub a sheet on the fibers of the wig from bottom to top. Not only does this help your wig look more natural, it will also make your wig smell nice!



To make your wig look even more natural, you can thin the ends of the wig with thinning shears. You can also use a hair-thinning brush to give your wig some short baby hairs around the hairline.

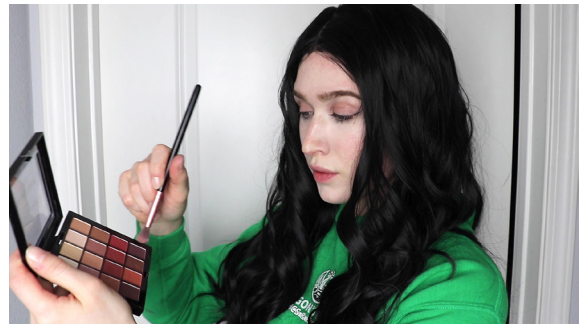


## FINISHING TOUCHES

You can use hair gel to stick some of the smaller baby hairs of the wig to the sides of your face. Hold the hair to your face while the gel dries. While the gel is still tacky, use a hairdryer on a low heat to help accelerate the drying process. This will help your wig look like it is growing out of your head.



Using a small makeup brush, apply makeup in a contour shade around your hairline. Experiment and see what tone works best with your wig and skin color. You can even blend this color into the base of the wig for a more natural appearance.



Does your wig have a part? Applying a concealer in your skin tone where the hair parts (or where the skin shows through) with a small brush will make your wig look even more convincing.

When I was wearing my Gamora cosplay, my skin was green, so I used a small brush to brush face paint in the part of the wig.



## BRUSHING YOUR WIG

Be gentle while brushing your wig! Wigs can be easily damaged by aggressive brushing. The gentler you are when brushing your wig, the longer it will last. In my experience, wide-tooth combs and brushes are ideal for brushing wigs.



## WASHING YOUR WIG

Wigs can get icky fast, especially when wearing one for an entire weekend. You can use dryer sheets to freshen up your wigs, but sometimes they need a good wash. To wash your wig, fill up a sink with warm water and your favorite shampoo.

Submerge the wig and swish it around in the suds. Use your fingers to massage the water and soap into the fibers for approximately 3 minutes or until it is clean.

Pick your wig out of the sink and drain the soapy water. Then you can rinse the remaining suds out of your wig and hang it up to dry. Side note: hanging up your wig can make it look like a scary floating monster.



# TRAVELING WITH COSPLAY



You did it! The time has come for you to bring your costume to an event for the first time. Here are some tips to help your costume arrive safely at its destination.

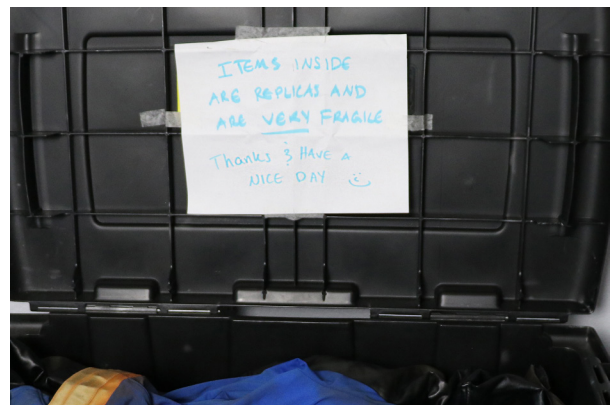
For most airlines, the maximum exterior dimension (length + width + height) of standard checked baggage is 62 inches (158 cm), including handles and wheels. You can find inexpensive, hard plastic bins in these dimensions at most home improvement stores. You can also find travel bins that have room for airline security-approved locks. I use these sturdy plastic bins to travel with cosplay and have never had an issue with a costume reaching a destination safely (knock on wood!).



When packing cosplay, I suggest putting the squishy, soft, durable items on the bottom (wigs and garments) to support the more fragile items that go in after them (props). If a prop or part of a costume needs more protection, I will wrap it in a soft garment, bubble wrap, or packing material. I also will pack a costume with dryer sheets to keep them fresh along the journey.



Before I close the lid on my bin, I write a nicely worded note to airline security letting them know the luggage contains fragile replicas and to handle everything inside with care.



As soon as you get your luggage from baggage claim, open it up and make sure nothing is missing or broken. If there are any problems, visit the airline's customer service center located inside the airport to file a claim.



# COSPLAY PHOTOGRAPHY

It is time to document all your hard work! In the first few years I cosplayed, I barely took any photos of my finished projects. Unfortunately, I don't even have photos of the first cosplay I made. Don't be like me! You deserve to have nice photos of you in your costume. Taking photos of your costume only takes a few minutes and your future self will be happy you did it.



## WHERE TO TAKE PHOTOS

Pick a spot in your house, outside, or at a convention. Doing a little research on where to take photos goes a long way. If you can, scout out specific areas in advance. Think about your character and what environment they would be seen in. What's the setting like? Is it a city? Forest? Beach? I'm sure a couple backdrops are coming to mind.

If leaving your house doesn't appeal to you, pin up a white sheet in your room as a backdrop and open up the blinds to let the sunshine in for some natural lighting. I have even taken cosplay photos in the breezeway of an apartment complex.



## WHEN TO TAKE PHOTOS

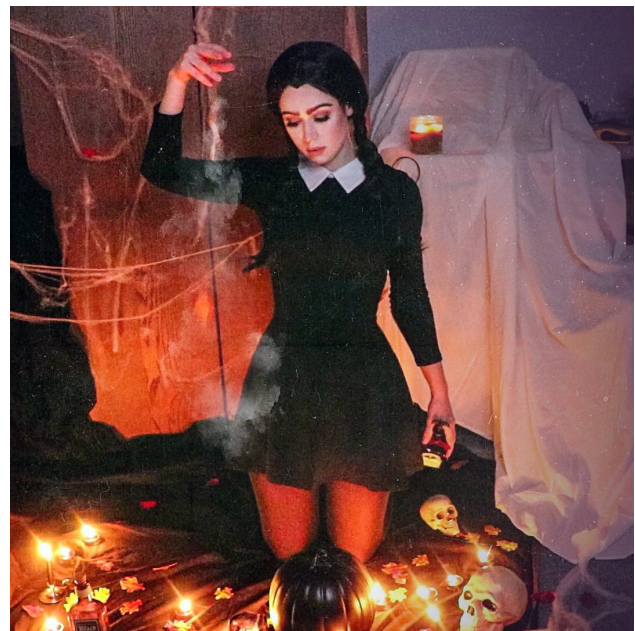
Many photographers schedule photoshoots approximately one hour before sunrise or one hour before sunset due to the optimal lighting those hours provide. I love the look of photos that are taken during these "golden hours," but the truth is you can take photos at any time and get great results. It all depends on what works best for you!



## SOLO COSPLAY PHOTOGRAPHY

If you're alone, don't worry! You can still get some great photos of yourself in cosplay. We live in a time where almost every smartphone has a camera and a timed photo feature you can use. Tripods for cameras and phones are cheaper and more accessible than ever before. Ring-lights and other lighting equipment are also available for affordable prices online. Some tripods even come with remotes you can discretely hold in your hand. This allows you to take photos of yourself without worrying about a timer. Attach your phone to a tripod, choose a location, and experiment with poses and angles. The convenience of taking your own photos means your photoshoot can be as long or as short as you'd like.

I did this photoshoot by myself by using my DSLR on video mode and taking screencaps of my favorite poses.



## RECRUIT YOUR FRIENDS!

Believe me, your friends think what you're doing is really cool and they probably want to be a part of it. Why not ask them to help you with a photoshoot? Your cosplay friends are especially good at choosing locations and taking photos of cosplay. Some of the best cosplay photos I have were taken by close friends. I have found that two heads are better than one when it comes to photoshoots. Your friends will be happy to help you come up with poses, locations, and angles for your photos.





*Photoshoot with Sherwin of ACCosplay Photography. Sherwin found this location and helped take some amazing photos of my Junkrat cosplay and many others you've seen in this book.*

## EDITING YOUR PHOTOS

My favorite desktop programs for editing cosplay photos are Adobe Photoshop and Lightroom. If photoshop isn't for you, there are many free mobile photo editing apps available. Some mobile photo editing apps are so advanced they rival many desktop editing programs.



Facetune and Photoshop Fix are some of my favorite mobile photo editing apps.

# CLOSING

You worked hard to finish your cosplay and now it's finally time to wear it. Whether you are putting on a cosplay for the first time or 100th time, that childlike excitement of becoming a character you love never goes away. You are going to have a blast and meet so many people who are as passionate as you are. The infectious excitement, positivity, and sense of community you will experience while in cosplay is something you'll never forget. Get out there and make some memories!



Thank you for taking the time to read this book. People like you make me eternally grateful to be a part of the cosplay community.

**FOR MORE COSPLAY  
TUTORIALS AND COSPLAY  
RELATED CONTENT, VISIT:  
[YOUTUBE.COM/ZONBISWORKSHOP](https://www.youtube.com/zonbisworkshop)**