

Cool Little Extras: Eyes, Teeth & Spikes, & Steam Punk Bolts

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Introduction

- As I've made more Halloween props, I've realized that in order to get more detailed, realistic props, one needs other techniques to add detail.
- For example, corpsing a skeleton with plastic or nylons makes a good prop, but adding eyes & teeth can make a great prop.
- Also, the ability to create simple molds and cast small details can make things such as Steampunk mad scientist specimen jars much more detailed & cool.
- Some of these techniques (how to make teeth for example) can also be part of a cool costume.
- So, in this demo, I go into three of these techniques that can add some needed details to your big projects or can also help with hacking a store bought prop (see other demo):
 - How to make teeth (& other things) out of Thermo/polymorphic plastic.
 - How to make realistic eyes from thermoplastic, eye forms, or ping pong balls.
 - How to make molds from fake Sugru & cast bolts or other small parts.

What is Thermoplastic & How to Use It

For teeth, claws, spikes or more



What is Thermoplastic/Polymorphic Plastic?

- Thermal labile plastic (Thermoplastic plastic or Polymorphic plastic) is plastic that will soften upon heating. It was originally made for the medical device (casts) and electronics industries. It comes in sheets, cloth net dipped in plastic, and small pellets.
- These thermoplastics can all be shaped and formed by immersing in hot water (160°-180°) until soft and pliable, then applying to a mold or form. Dry heat (usually in the form of a heatgun or hair dryer) can also be used for the initial forming or later to build up areas or to reshape. Sheets are typically used for vacuforming, while the plastic net could be used for plants/vines.
- Pellets are usually free-sculpted once soft (or can be applied to a mold) & are very useful for making small items like teeth, claws, or spikes.
- Here is more on this plastic: <https://www.pnta.com/customer-service/faq/tips-on-thermoplastics/>
- Here are a few places you can buy it:
 - <https://www.ebay.com/i/192317779386?chn=ps>
 - https://www.amazon.com/InstaMorph-Moldable-Plastic-6-oz/dp/B004MFLU4Y/ref=asc_df_B004MFLU4Y/?tag=hyprod-20&linkCode=df0&hvadid=242163315092&hvpos=1o3&hvnetw=g&hvrnd=16414364708007816457&hvpon=&hvptwo=&hvgmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9031974&hvtargid=pla-405660824088&psc=1
 - https://www.adafruit.com/product/2504?gclid=Cj0KCQjwhPfkBRD0ARIsAAcYycEAAHs1INpmnBmNH1rL1g5P6M7z4eyS2fFpN-LqdgnaVt9r6RA4EQMaAtDWEALw_wcB

How to Work Thermoplastic for Freehand Sculpting

Materials:

- Polymorphic plastic pellets
- Small bowl (something that can be heated and you don't use for food – I used a silicon measuring/cooking bowl)
- Water
- Metal fork or brush handle.
- Cooking thermometer
- Microwave
- Optional: food dye or acrylic paint to color plastic/ paint for decorating after depending on project.

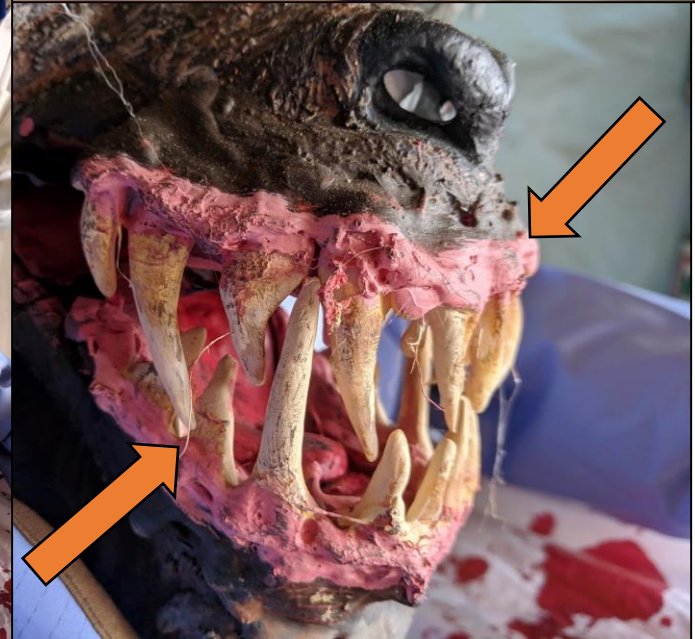
How to Do:

- Microwave water in bowl 1-2 minutes to above 160 degrees F.
- Put plastic pellets into water to soften & turn transparent.
- Use fork or end of brush to pick up a small amount of the plastic and mold by hand – be careful as it will be very warm.
- If desired, mix some acrylic paint or food coloring into the mass to color or paint after.
- You have a couple of minutes to work with this – if it hardens, you can re-dip it into the water to soften.
- Paint or otherwise decorate, depending on project



How to Make Fake Teeth (Wearable) in 30 Minutes

- Great video by Ellimacs SFX makeup on how to create fake monster teeth to actually wear – they show you how to create upper dentures you can use in a costume:
 - <https://www.youtube.com/watch?v=GTu9NmY2w5o>
 - [ellimacs sfx makeup](#)
 - Learn how to create epic teeth and fangs for all your monster makeups and halloween! JOIN US ON INSTAGRAM AND PERISCOPE: @ellimacsSFX Buy your ellimorph plastic at <http://ellimacs.com/shop/> starting at only 4.99 We offer worldwide shipping!
- This also gives you a source for thermoplastic/polymorphic plastic, but it isn't necessarily the cheapest source – Ebay seems to be the cheapest.
- I used their technique to make my teeth and spikes for the Chupacabra from a werewolf mask.



Realistic Fake Eyeballs

For Skulls, Zombie Props, or Beyond

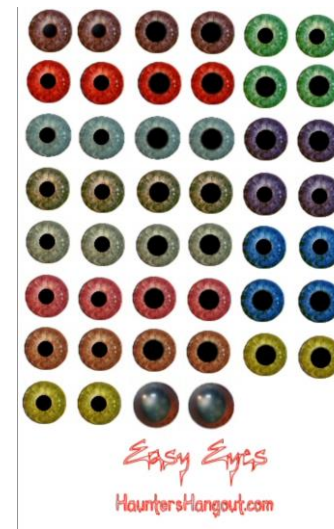


Make Fake Eyes Using Ping-Pong Balls, Eyeball Blanks or Polymorphic Plastic

- Thermoplastic plastic/ polymorphic plastic can be used to make other lightweight prop additions – including fake eyes. Realistic fake eyes can also be done using Ping-Pong balls or smaller balls from roll on deodorants, but the thermoplastic allows you to tailor the size for your prop.
- Here's a tutorial on using this plastic to make fake eyes (basically, it is the same as using ping pong balls with the addition of you creating the round eyes):
https://www.youtube.com/watch?v=48zY3p_i88
- Written instructions for using ping pong balls are here:
<http://www.monstertutorials.com/2014/12/18/eyes-1-easy-realistic-eyes-eyeball-tutorial/>
- Here are instructions using the roll on deodorant ball eyeball blanks (which can be purchase from Monster guts here if you don't use roll on deodorant:
<https://www.monsterguts.com/store/product.php?productid=17732>):
<http://www.hauntershingout.com/home/easyeyes.asp> This tutorial uses paint instead of yarn for the blood vessels in the eyes; either works, although the yarn gives you an easy "optic nerve".
- I have summarized the eyeball blank eyeball tutorial in the next slides – if you wish, just substitute thermoplastic balls or other eye forms and look at the others to see whether you prefer yarn or paint.

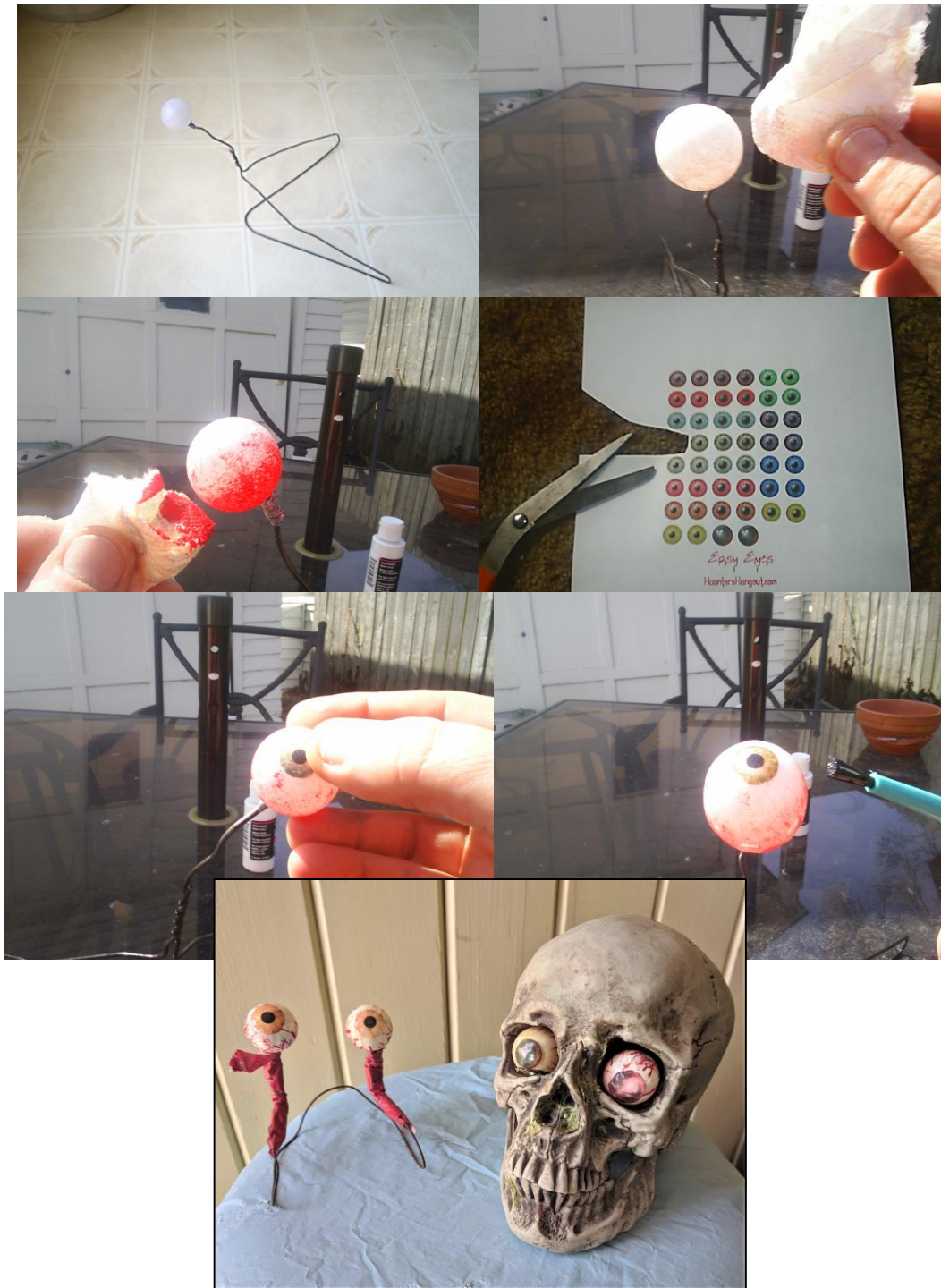
Making Realistic Fake Eyes- Materials

- Eye form ball – could be small ping pong balls, other small balls or white thermoplastic (see tutorial previously for how to make).
- Printed iris (or picture of your own eyes) – use this template or just search google for “how to make realistic eyes for Halloween printed iris”:
<http://www.hauntershingout.com/graphics/projects/easyeyes/easyeyes.jpg>
- Red Yarn (for blood vessels and optic nerve) or red acrylic paint if you prefer to paint blood vessels.
- White paint for base eyeball if form is not white.
- Clear nail polish or Mod Podge
- Drill for hole in form & paint brushes/paper towel for painting if painting.
- Wire hanger for stand (if painting)



Making Realistic Eyeballs – How To Steps

- Drill a small hole in the eyeball forms & create a stand out of wire hanger (a).
- Using paper toweling (or a brush), paint the ball white if needed. Let dry.
- Using paper toweling or a brush, use red paint to make the back red and blood vessels running toward the front of the eye (c).
- Cut out your chosen iris & glue onto front.
- When iris is dry, coat the entire eye in 3 minute Epoxy or clear nail polish to give it the “realistic” look. Or Mod Podge can make it look milky & dead.
- Once dry, you have a finished, realistic eyeball that can be used as a prop!



How to Make & Use Fake Sugru (“Oogoo”) as a Mold

To Cast Hot Glue Bolts on Steam Punk Specimens



How to Make Fake Sugru To Create Molds for Fake Bolts

- I was looking for a way to make decorations for my Steam Punk mad scientist anatomy specimens & other mad scientist props to transform them from modern to retro. In particular, I needed a lot of fake bolt heads – real ones were too heavy and expensive and I would have had to cut the heads off.
- I decided that I could cast them out of hot glue, but how to make the mold?
- Sugru is a moldable glue – it comes out of the package as flexible clay & dries into silicon rubber. People love it for fixing things, creating casings for electronics, and for crafts in general. It can be used as an excellent mold material for casting small details & appeared to be a solution to my bolt problem
- However, it can be expensive unless you are only using a very small amount.
- A less expensive way to create a mold is to make “Oogoo” a similar substance made from inexpensive materials, for which an Instructable is available:
<https://www.instructables.com/id/How-To-Make-Your-Own-Sugru-Substitute/?download=pdf>
- I summarize the needed materials on the next slide & then discuss how I used it to create a mold for hot glue bolts.

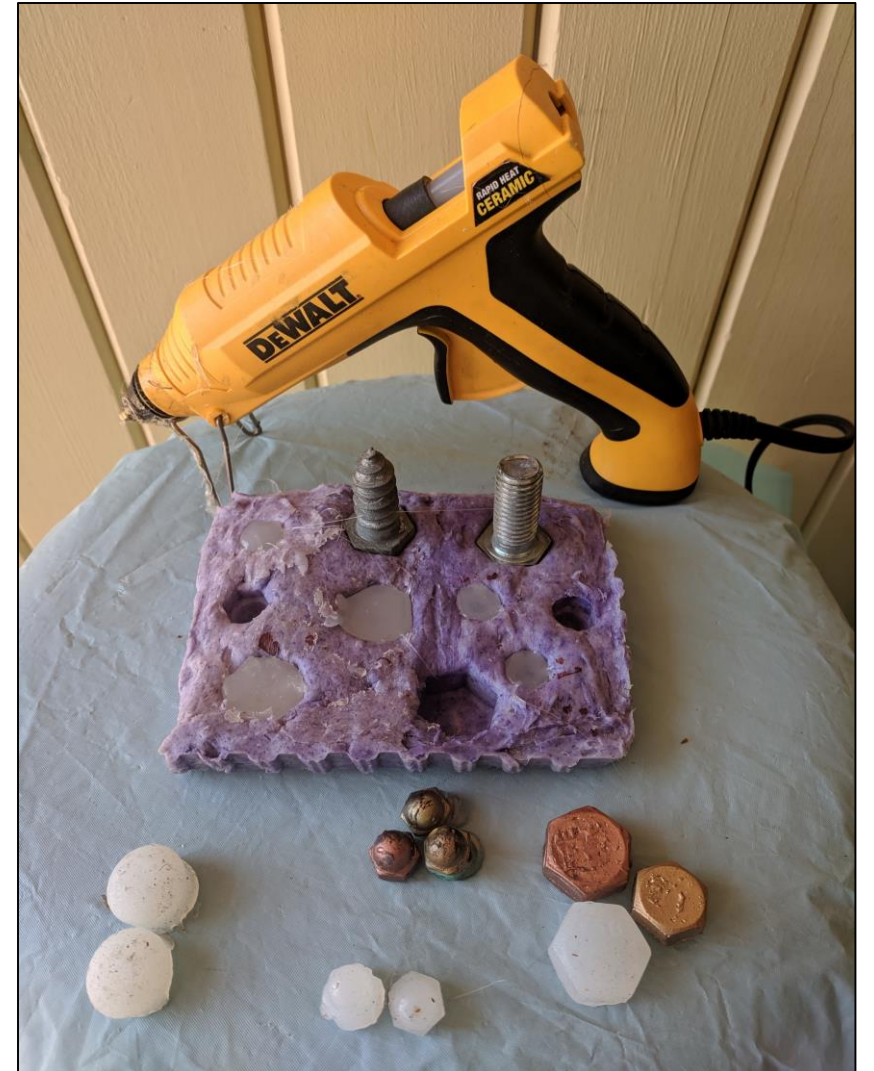
Materials for Oogoo – From the Instructable

- 100% clear silicone caulk-the kind that gives off the vinegar smell while it cures. Can be found in any hardware store. Newer silicone caulks that have a different smell such as GE silicone II will not work for this.
- Caulking gun for silicone tubes.
- Corn Starch
- Mixing cups/ form for mold (I used a small rectangular cardboard box covered in gorilla tape to avoid sticking)
- Popsicle sticks
- Gorilla instant glue
- Gorilla tape
- Linseed oil based paint
- Rubber/ nitrile gloves for hand protection.



Materials for Mold Making & Casting Bolts

- Small items you can make a one sided cast from (in this case bolts for bolt heads)
- Mold release for things that might stick – not needed for hot glue.
- Hot glue for casting (can use other things, but this is what I used).
- Paint for bolts. I used metallic spray paint for added realism, then dry brushed with rusty brown & turquoise to get that “corroded/rusty look” for iron & copper.



How to Steps to Make Oogoo Mold

This is a simplified “how to”; more detailed instructions can be found on:

<https://www.instructables.com/id/How-To-Make-Your-Own-Sugru-Substitute/?download=pdf> :

- First, prepare your mold container. Oogoo will stick to most things before curing other than PVC, polyethylene & polycarbonate plastic. If you use a plastic container, you can put Oogoo directly into them; otherwise, line your container with Gorilla tape, which also doesn't stick.
- Cover a popsicle or other stick with gorilla tape for mixing.
- Then, mix corn starch with Oogoo in mold container. Start with a 1:1 mix by volume and start with a small volume. Be careful, as Oogoo is very hard to mix & will stick to most things before curing, even your gloves. For even mixing, use a few drops of linseed paint- if the color is even, the mix is even.
- A 1:1 mix will only give you about 5-10 minutes working time; if you need more time, increase the ratio to 1 cornstarch to 3-5 silicon.
- Evenly spread the Oogoo in the mold container and smooth top; then push in the items you want to cast (such as bolt heads) before the Oogoo sets. Make sure not to go through bottom of mold.
- Allow to completely set with bolts in place; usually 1-2 hours in a well ventilated area due to out-gassing of acetic acid (good to do mixing here as well).

Casting Bolts & Finished Product on Specimen Jar

- Once mold is completely set/cured, pull out bolts. They usually come out easily.
- Then, using hot glue, fill the mold up and let glue set – these bolt heads come out easily and the hot glue is pretty good at showing details. This allows creation of many bolt heads easily.
- I made a lot of hot glue bolt heads, and then spray painted them with the base metallic bronze or copper for the steam punk look.
- I then used hot glue (what else?) to attach to a specimen jar.
- Dry brushing to bolts added the rusty & corroded look to the jars.
- Here's a finished product, similar to those on the "Cabinet of Curiosity"

