

How to make a Green Lantern ring- including a glowing version!

by **Honus** on June 14, 2007

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I'm a former bicycle industry designer turned professional jeweler.

Intro: How to make a Green Lantern ring- including a glowing version!

Here's how to make your own resin cast Green Lantern ring. This is a complete overhaul of my original instructable on how to make a Green Lantern ring, which previously only showed how a cast sterling silver ring is created. Since many people don't have access to silver casting equipment I decided to show how to cast a ring in resin and also how to make a translucent resin version that glows. I'm still showing how a silver ring is made for those that are interested in the process and have access to the necessary equipment.

Please note that I do NOT sell these (for multiple reasons-see the comments below.) All requests to make rings will go unanswered so please don't ask!

Now go make your ring and repeat after me:

"In brightest day, in blackest night, no evil shall escape my sight! Let those who worship evil's might, beware my power.. Green Lantern's light!"



Image Notes

1. Hal Jordan ring lit up with a 3mm green superbright LED



Image Notes

1. urethane resin casting right out of the mold





Step 1: Materials

Depending on which version of the ring you want to make the materials vary greatly-

All rings will require a wax pattern so for that you will need:

Jeweler's modeling wax (both ring carving shape and round sprue wax) - available from jeweler's supply stores or <http://www.ottofrei.com>

Dremel tool or flex shaft tool

Files/carving tools

Fine sandpaper/steel wool

For the resin ring:

X-Acto knife or scalpel with curved blade

Silicone RTV molding compound

Urethane casting resin- I use Alumilite casting resins and RTV silicone but Smooth-On is also a good company

<http://www.alumilite.com>

<http://www.smooth-on.com>

For the glowing ring:

Clear casting resin- I've used both epoxy resin and polyester resin made by Cast'n Craft- it's sold at craft stores like Michael's and Hobby Lobby

Silicone RTV molding compound

Transparent green dye- Cast'n Craft produces this for its clear resins

3v watch battery- I used a CR1025 lithium cell

Green LED- I used a 5000mcd super bright 3mm LED (part #NTE30031)

Clear 5 minute epoxy

For the cast silver ring:

Centrifugal caster

Burn out furnace

Steel flask

Vacuum table

Ceramic casting investment

Polishing motor/buffs

These are just the basics- I'll get more into materials in greater detail in the individual sections.

A note about safety- Many of these procedures require the use of proper safety equipment as well as adequate ventilation. Please follow the manufacturer's recommendations regarding safety and health warnings on all resins, paints and casting supplies.

Step 2: Wax pattern

To make a ring, first you need to carve a wax pattern. I use a green jeweler's wax to make my patterns.

The wax is carved using a dremel type tool to first rough out the shape and then this is refined using scraping/carving tools and small files. For scraping and smoothing small flat areas (such as the top of the ring) an old small screwdriver works really well. Wax carving is something that requires a fair bit of patience- remember that the better your wax model is the better your finished casting will be.

Here are the basic steps on how to carve a Hal Jordan wax ring (this is the easiest wax of the three to carve.)

- 1) To carve the wax ring first slice off a section of ring wax that is slightly wider than what the finished ring will be
- 2) Now open up the hole in the wax until it approximates your finger size- it's better to have it too tight than too loose at this point as you can always remove a little material later on. Then use a Sharpie pen or scribe to draw the profile of the ring on the wax and cut that out of the wax.
- 3) Now rotate the wax so you're looking at the end of the ring. Now draw the shape of the ring on the wax and remove the excess material. At this point you're only trying to establish the general shape of the ring and thickness of the ring shank.
- 4) Now switch to the top of the ring. Draw the circular shape on the top of the ring and remove the extra material. Now is when you have to start blending all the contours of the ring using a scraping tool- just work at it slowly until you get the final shape you want.
- 5) Now cut the symbol into the top of the ring using a Dremel tool and then refine it using a small flat scraping tool.

Once you're happy with the look of the ring you can smooth the finish with some fine sandpaper and steel wool. Wax carving is something that is hard to learn- there have been whole books written about it. You just have to jump in and start carving and go from there.

<http://www.instructables.com/id/How-to-make-a-Green-Lantern-ring--including-a-glow/>

If you're going to make a glowing ring you have to remember to make the ring tall enough to house the LED and watch battery- this will more than likely require you to carve the wax from a larger block of solid wax (unless you have really small hands.) I've listed a supplier and part numbers for both types of wax below.

The insignia area of the ring should be somewhere around 10mm to 12mm tall, depending on the exact battery and LED you are using and how deep your pattern is cut into the top of the ring. If you need it to be lower you can carefully sand down the top of the LED to reduce the height but unless you find an extremely low profile LED and battery I think it'll be very difficult to get the total height down under 7.5mm to 8mm at the very lowest.

The best way to figure it out is bend the leads on your LED and then hold your battery underneath it. Measure the height of the LED and battery together and then add a little extra for the engraved pattern on the top of the ring. This is of course assuming you're making a Hal Jordan or Kyle Rayner style ring- the Alan Scott ring as I made it would have to be slightly different as I didn't make the band thick enough or wide enough to hold the 3v battery.

I ended up making three wax patterns for the Hal Jordan, Kyle Rayner and Alan Scott rings.

Here's a detailed list of tools/materials:

From- <http://www.ottofrei.com>

Ferris green ring wax (T200 flat side with hole) part# 121.369

Block of green wax for carving light up ring (this is needed due to the added height for the LED and battery)- part# 121.0706

Saw frame- part# 149.740

Wax sprue wire (6ga.)- part# 121.560

Large carving burr- part# 120.205

Wax file- part# 131.384

Wax saw blades- part# 149.300D

Wax carvers- these are a better combination (one flat and one detail carver) than the blue handled carvers I show in the photos and they're half the cost- part# 121.851 & 121.852

Not all of the tools are absolutely necessary- you can substitute a couple of small flat bladed screwdriver for the wax carvers and you can use regular Dremel burrs for carving as well. Wax files are nice to work with but wood files and coarse metal files will also work.

Otto Frei is a great company to deal with and you don't have to be a professional jeweler to buy from them. I've been dealing with them for nine years and the service is always first rate.



Image Notes

1. Hal Jordan ring



Image Notes

1. Kyle Rayner ring



Image Notes
1. Alan Scott ring

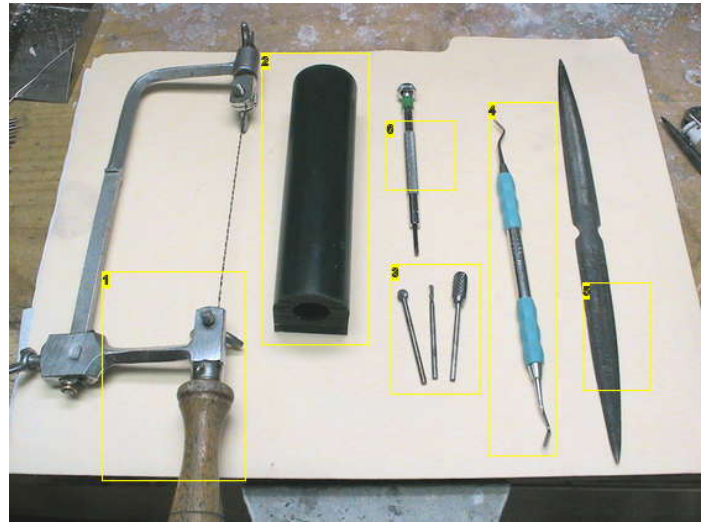
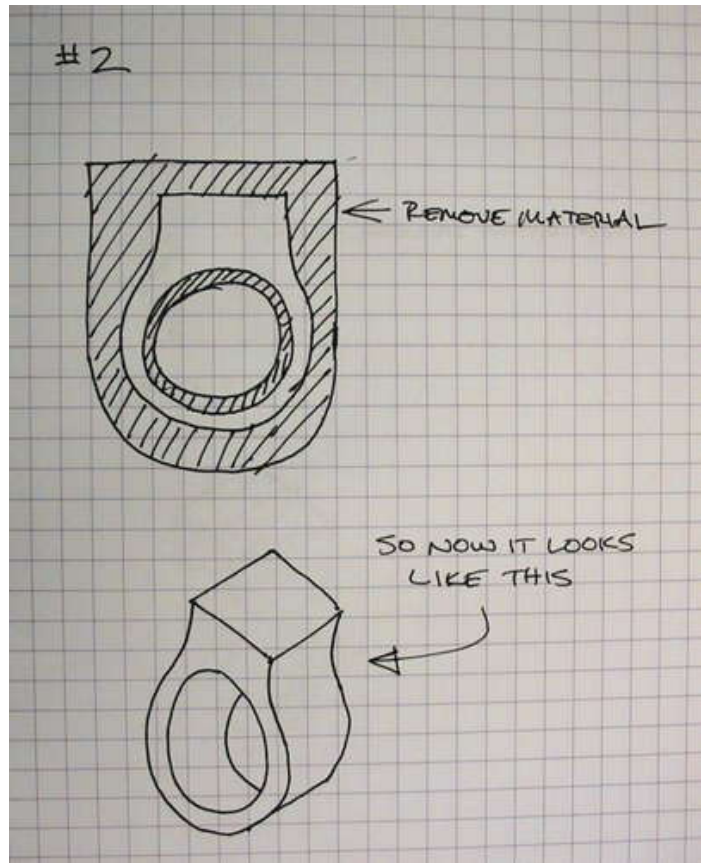
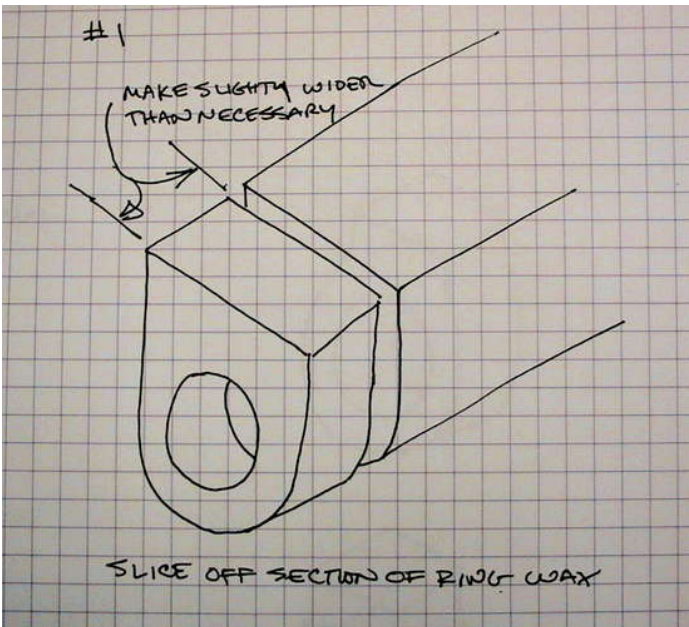
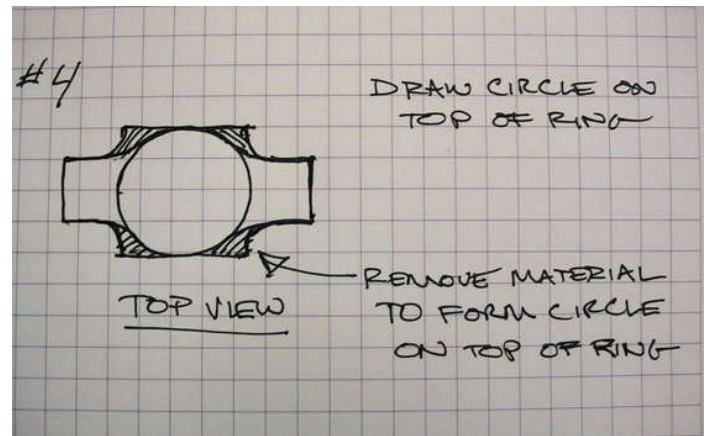
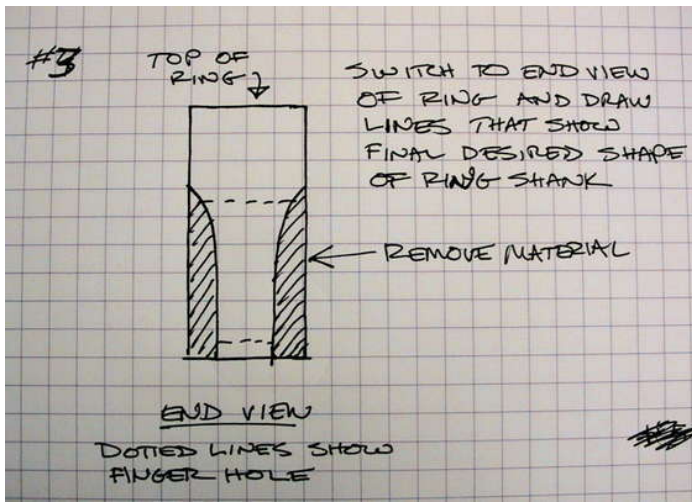


Image Notes
1. jeweler's saw with wax saw blade
2. green ring wax
3. burs for carving: on the left is a ball burr- I use this for blending center is a straight burr- I use this for detail work on the right is a rough burr- I use this for rough shaping
4. This is a dental type scraping tool- I use it for detail work and smoothing flat surfaces
5. large wax file- used for general shaping
6. small flat bladed screwdriver- this is good for scraping detailed areas that have flat sections that are hard to get to





Step 3: Molding

To make an RTV mold of your wax model (my wax model shown here is yellow because it's a duplicate wax I made using a wax injection process) for resin casting you have to add some sprues. There is a vent sprue that attaches to the bottom of the ring and a fill sprue that attaches to the top of the ring. This is what is known as an underpoured mold. The reason for doing it this way is to allow any trapped air to escape from the mold when pouring resin.

There are many different ways in which the sprue can be attached. It's often a trade off between what will make the finished casting easier to clean and what will make the mold easier to cut. There is also the issue of which method uses the largest mold as RTV silicone isn't cheap. In the photo below I've shown various methods of attaching the sprues. To attach the sprue simply heat the end of it and press it onto the wax model.

#1 shows a variation of the way my Hal Jordan ring wax is sprued. It will make the mold much easier to cut open but will require a little bit more clean up work to the finished casting.

#2 shows the sprue going directly to the top of the same ring wax. The mold will be very easy to cut open but the finished casting will require a bit of cutting/shaping to the pattern in the top of the finished cast ring. The mold will be slightly larger and will therefore require more silicone.

#3 and #4 show the Kyle Rayner and Alan Scott rings. These ring waxes should be sprued in this method to because the finished casting would otherwise be very difficult to clean up and/or the quality of the finished casting will suffer due to bad fill.

The important thing to remember is that the fill sprue must be attached to whatever will be the lowest point of the wax model in order to help remove air from the mold during casting.

Once the wax model is sprued I make a mold frame for it by bending some thin aluminum into a squared off "U" shape. Then I superglue the wax model to the bottom of the "U"- this prevents the wax model from the likelihood of it falling over in the mold during the process of pouring the RTV silicone.

Next I cover the sides of the "U" with some aluminum sheet and wrap a couple of rubberbands around the mold frame. At this point it's important to make sure that the sides of the mold frame are completely sealed- if they aren't use a glue gun to seal any gaps.

This is only one way of making a mold frame/box. You can also use plastic sheet or foam core board or even Legos to make a box for your wax model to sit in. All that matters is that it is taller than the wax model and that it is sealed so the silicone doesn't seep out during molding.

Now I mix the silicone. This is usually where things will go wrong for first timers- you need to mix the RTV exactly according to the manufacturer's instructions and make sure that the rubber and catalyst are thoroughly stirred. I've always used Alumilite HS II RTV silicone to mold wax models and it's worked very well for me- it's very flexible, holds up really well and doesn't require the use of a vacuum chamber. Unless you have access to a vacuum chamber make sure you use a silicone that doesn't require you to vacuum it during the molding process.- otherwise you'll have a thousand tiny air bubbles in your mold.

After mixing the silicone, pour it into the mold by holding it so that a thin strip of silicone can pour down into the mold- this will help to reduce air bubbles in your mold. I

always pour slowly into one corner of the mold and then keep slowly pouring until the entire wax model is covered. After pouring let the mold sit for 24 hours (or as long as the brand of silicone that you are using says to wait) before cutting open the mold.

More info about RTV silicone/where to buy it:

I've used Alumilite products for a long time and have always been very happy with the results. You can buy it directly online from them at- <http://www.alumilite.com>

For RTV silicone the best choices are the Dow Corning HSII and HSIII. The main difference is the HSIII is a little more flexible, which works well for detailed molds with severe undercuts. The HSII is a little more durable/tear resistant and that's what I used. The 1lb. kit is enough to make three ring molds, unless you have bannana hands, in which case it's good for two molds.



Image Notes
1. Wax sprues

Image Notes

- 1. This brass cone forms a funnel for pouring the resin into the mold- you can also carve a funnel shape from wax
- 2. fill sprue
- 3. vent sprue

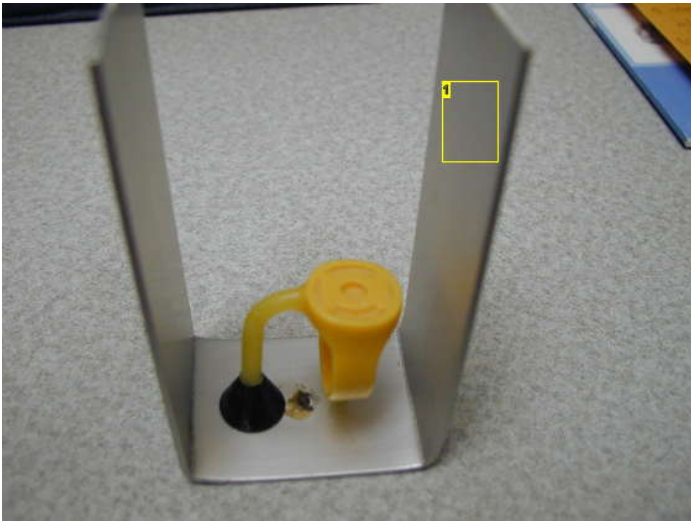
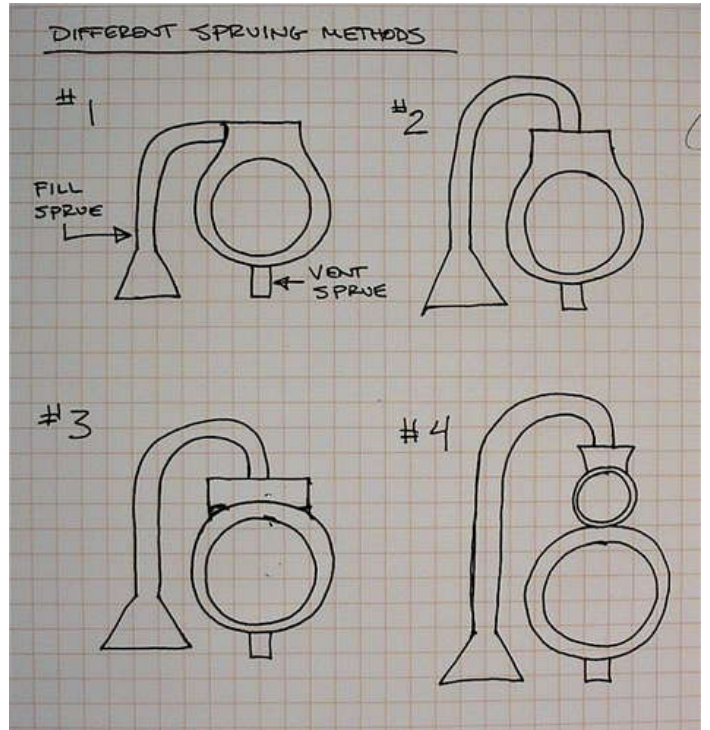


Image Notes

- 1. mold frame bent from thin aluminum



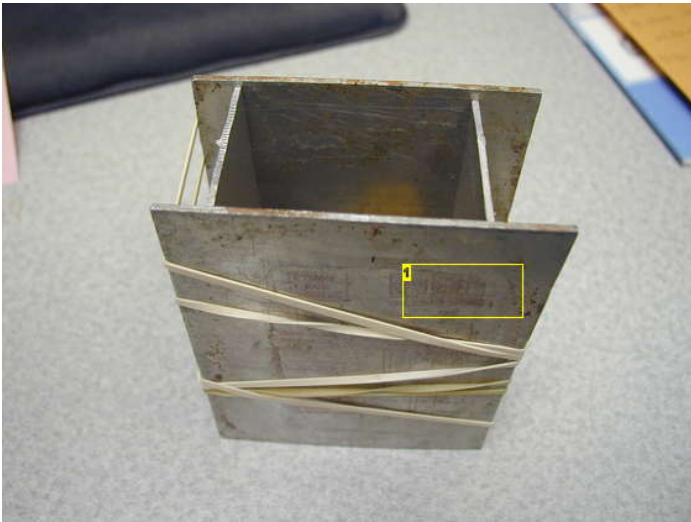


Image Notes

1. flat aluminum sheet used to make mold frame into a box



Image Notes

1. pour the silicone in a thin ribbon to help release air bubbles



Image Notes

1. Alumilite HS II RTV silicone and catalyst- this small container will supply enough rubber to make at least three molds

Step 4: Cutting open the mold

Now remove the mold from the mold frame/box.

To cut the mold open I use a scalpel with a #12 curved blade (there is an X-Acto blade that is similar.)

The curved blade makes cutting the mold open easier because you want to make small up and down curves as you cut. These cuts will help the mold halves lock together after the wax model has been removed.

Begin by cutting a shallow line across the bottom of the mold and then cut a shallow line down each side of the mold, stopping before you get to the end. Now slowly cut the mold open by cutting from the inside center of the mold and working your way outward towards the side of the mold. Remember to cut with a slight up and down motion, like you're trying to cut tiny hills and valleys in the mold. Use your fingers to pry apart the mold as you cut.

Keep cutting until you get to the top of the ring. You don't want to cut the mold entirely in half- by leaving it together it will help realign the mold for casting.

If you sprued your wax model the same way I did mine you'll also find that you will have to cut slots as you go so that the ring shank will be able to be released from the mold. The mold rubber is plenty flexible and the ring will pull right out. Spruing the wax so the ring faces sideways will make cutting the mold open much easier.

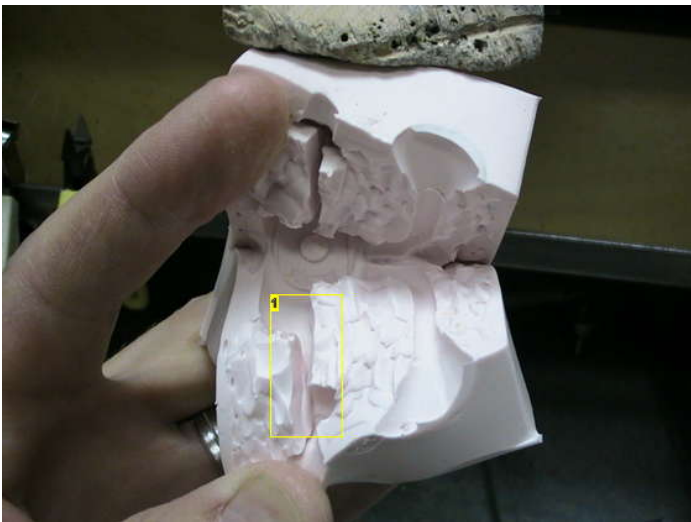
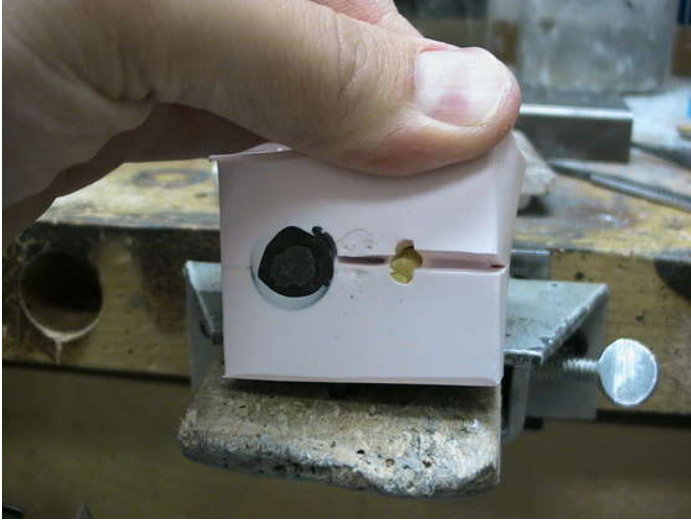


Image Notes

1. slot cut in order to remove ring shank

Step 5: Resin casting

Now the fun part- casting!

First lightly dust the inside of the mold with baby powder (talcum powder) and blow off any excess. This will reduce surface tension in the mold and you'll get a cleaner casting. No mold release is required with silicone molds.

Now put some flat sheets on the sides of the mold and put a rubber band around the mold to help hold the mold halves together. It doesn't have to be super tight- you don't want to deform the mold.

Next mix your resin according to the manufacturer's instructions. I use Alumilite regular urethane casting resin. This stuff sets up fast- you have a pouring time of about 90 seconds and after 5 minutes it's completely cured.

Pour the resin slowly into the larger hole- the resin will flow down into the bottom of the mold and then rise up from the bottom, forcing air out of the mold through the vent hole. As you pour give the mold a couple of firm taps down on a table to help release any trapped air. The resin will soon begin to cure and after a few minutes you can remove your ring from the mold. Wait until the resin is fully cured before cutting the sprues off so you don't deform the ring. After the sprues are cut off you can lightly

sand the resin casting and paint the ring. Make sure to check that the ring fits first! If it's a bit too tight you can ream out the inside of the ring with a Dremel tool.

Painting is covered later but it is also possible to mix opaque green dye in with the resin during casting to eliminate the need for painting, which makes for a less pretty but far more durable finish.

After casting my resin ring I decided to cast a transparent ring using a clear casting resin with some transparent green dye mixed in. The casting procedure is exactly the same but the clear resin I used takes 24 hours to cure. I've used both clear polyester casting resin as well as two part epoxy casting resin and both have worked well. Clear urethane resin is also available but it can be more difficult to work with as some types of clear urethane require a special type of silicone be used for the mold and/or vacuuming the resin to reduce air bubbles.

All resins are slightly different so make sure to follow the manufacturer's directions regarding the brand of resin you use. The ring I made used less than 1/4 ounce of resin in each casting so you can make a lot of rings from a small supply of resin.

More info about resins/where to buy it:

For opaque resin castings I use the Alumilite Regular urethane casting resin- it makes great castings that are really durable. The 28oz. kit will make more rings than you can shake a stick at. Alumilite also makes a green dye in one ounce bottles so you can color your resin and avoid the hassle of painting.

For clear casting resin there are three options; epoxy resin, polyester resin and urethane resin.

A company called Cast'n Craft makes both epoxy resin and polyester resin in small kits as well as transparent green dye. Cast'n Craft is sold at places like Michael's and Hobby Lobby. Epoxy resin is a little trickier to mix than polyester resin but it doesn't smell as bad- it does take a lot longer to cure than polyester resin. Alumilite makes a clear urethane resin but they recommend vacuuming to reduce bubbles during casting- urethane resin would ultimately produce the best quality casting but I have yet to try it without vacuuming so I can't really recommend at this time unless you have access to a vacuum chamber.

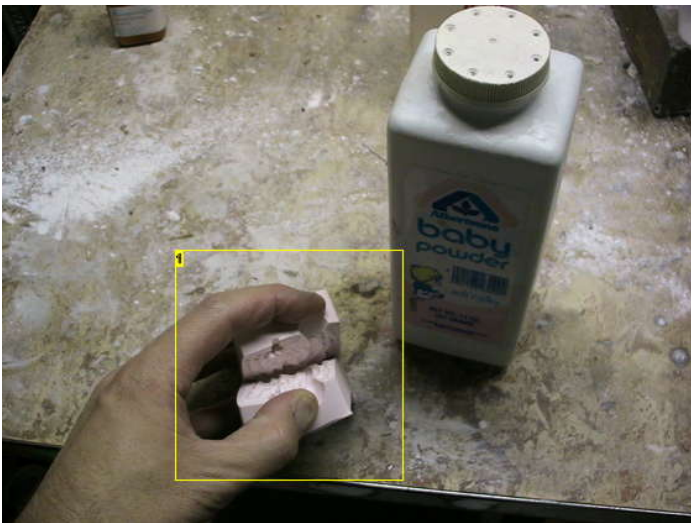


Image Notes

- 1. dusting the mold with baby powder

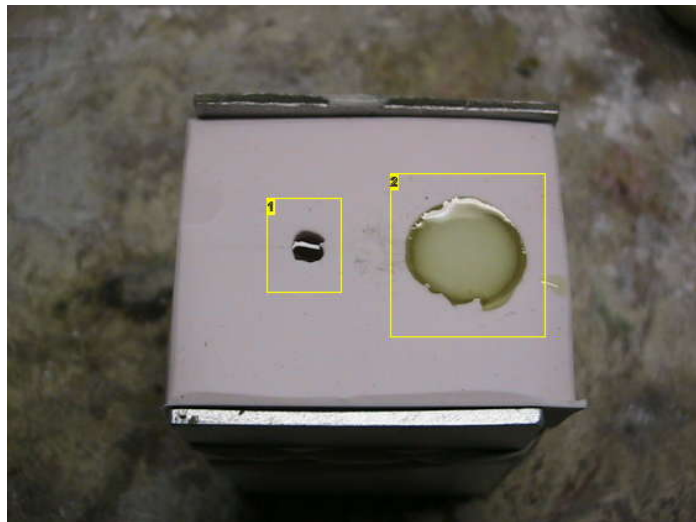
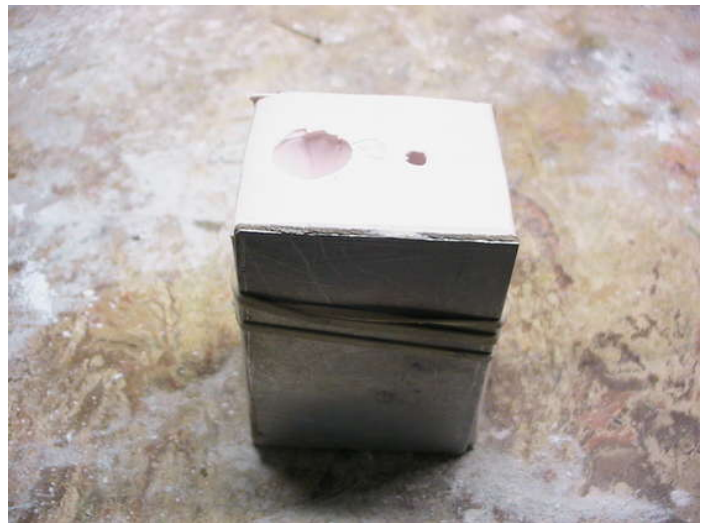


Image Notes

- 1. vent hole
- 2. pour the resin in this hole



Image Notes

- 1. urethane resin casting right out of the mold



Image Notes

1. urethane casting resin

Step 6: Light it up!

Now that I had a translucent green ring I decided to embed a bright green LED in it. This is done by first hollowing out a section on the underside of the ring. Then cut one of the LED wires short and bend the other LED wire to fit the 3v watch battery (watch the polarity!)

Now make sure that the LED and battery can fit into the underside of the ring with the LED lighting up. You want the watch battery to essentially press fit into place in the underside of the ring. After testing the fit, remove the watch battery and glue the LED into place with some clear epoxy. Make sure the leads for the watch battery are exposed. After the epoxy dries just insert the watch battery into place and you now have a glowing ring! The battery is easily removed with a small flat bladed screwdriver to preserve battery life when the ring isn't being worn.

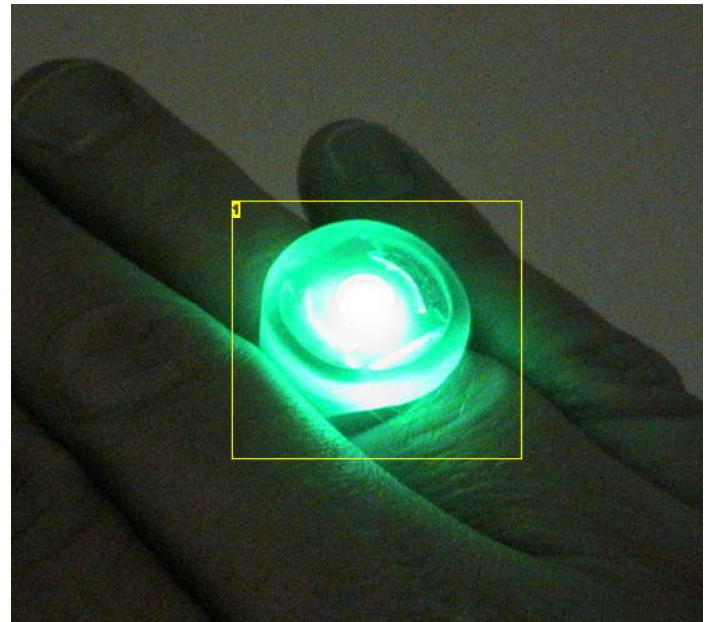
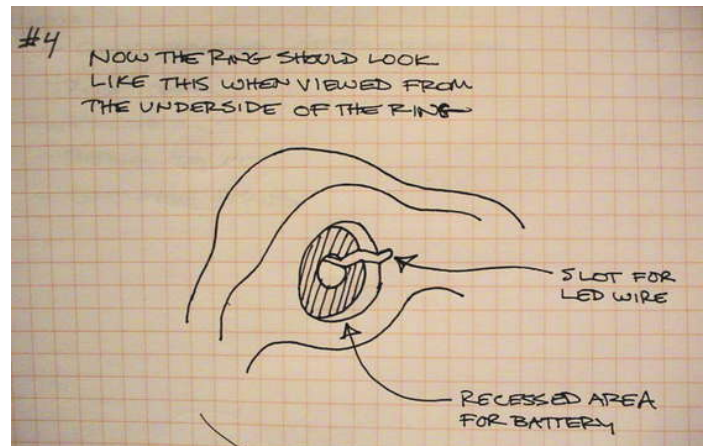
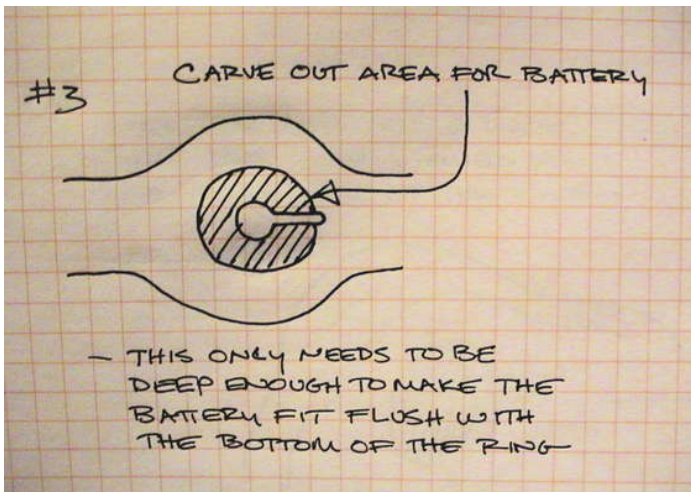
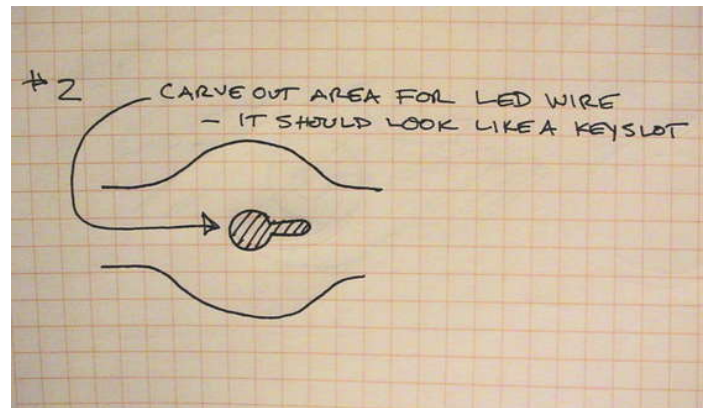
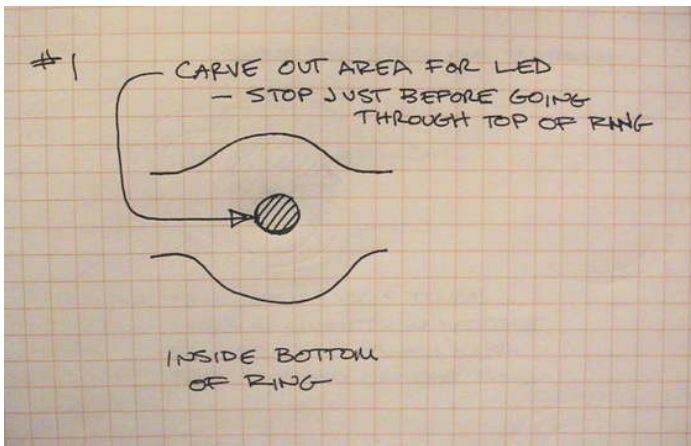
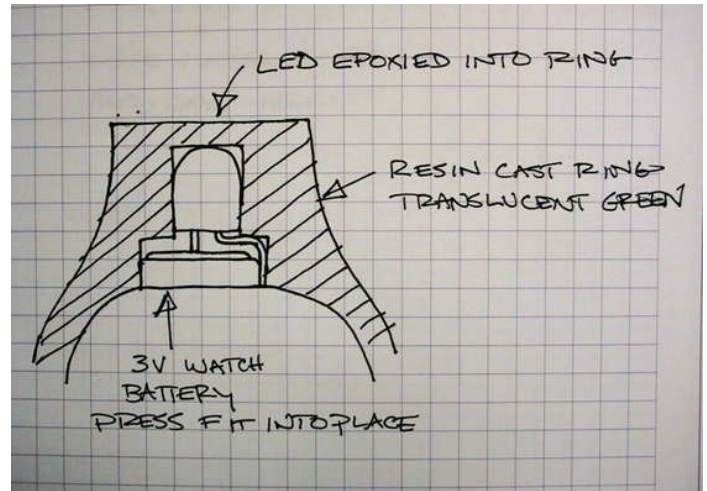
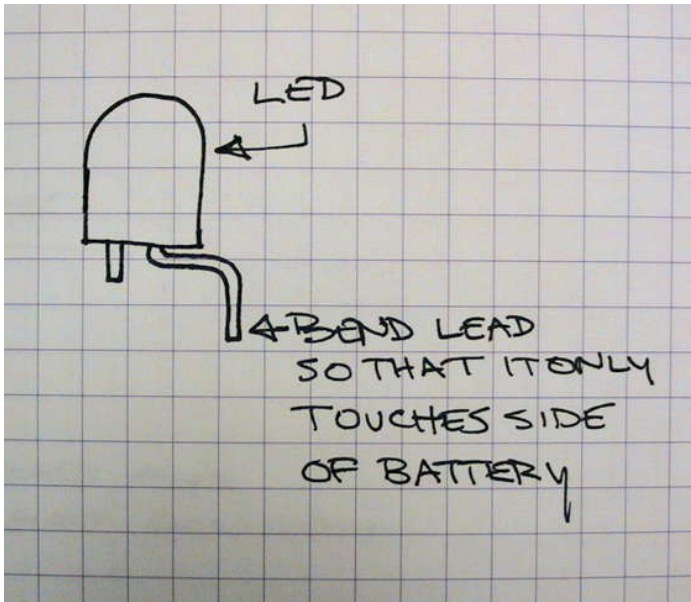
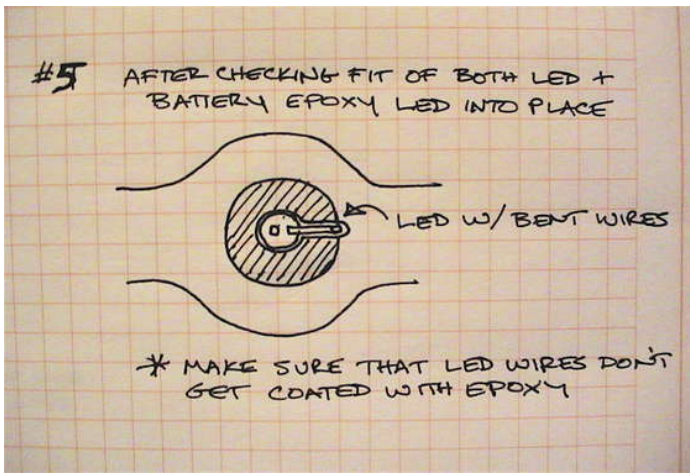


Image Notes

1. Hal Jordan ring lit up with a 3mm green superbright LED





Step 7: Casting the silver ring

So what do you do if you want something more durable than a resin ring? Cast it in silver!

It's pretty uncommon for people to have this type of specialized casting equipment so I'm keeping this part pretty short- it's really just here to give people some idea of the processes involved. My recommendation is to carve your wax model and take it to a local jeweler or trade school and see if they will cast it for you.

To cast the ring in sterling silver first the wax model of the ring is attached to a sprue base. Unlike resin casting there is only one sprue attached to the bottom of the ring. This then has a steel flask placed around it.

Next a ceramic casting investment is mixed, vacuumed and poured into the flask and then the flask is again placed in a vacuum chamber to remove any air bubbles.

After an hour, the rubber base is removed and the steel flask is placed into a burnout furnace overnight. The wax will melt out of the ceramic, leaving a cavity for the molten metal to flow into.

The next morning the flask is pulled from the oven and is placed into a centrifugal caster. The proper amount of silver is placed into the crucible in the caster and is heated with a torch until molten.

The caster is then spun and the centrifugal force throws the metal into the ceramic mold. The steel flask is then removed from the caster and is set aside to cool.

After a couple of minutes the flask is placed in a large bucket of water and the ceramic dissolves, leaving a cast silver ring.

The rough casting then has the casting sprue cut off and is cleaned up using a Dremel/flexshaft tool and sandpaper.



Image Notes

1. rubber sprue base for steel casting flask



Image Notes

1. steel flask
2. rubber bowl for mixing investment



Image Notes

- 1. ceramic casting investment



Image Notes

- 1. electronically controlled furnace



Image Notes

- 1. crucible
- 2. centrifugal casting machine



Image Notes

- 1. preheating the crucible before casting



Step 8: Polishing and painting

Now the ring is polished. First I go over the entire ring using a polishing buff with tripoli compound. This is then followed by another buff using a green rouge compound. The important thing when polishing is to remember not to stay in any one area for too long- always keep the ring moving.

If you want a polished finish that's all you need to do.

To paint the ring you have to get rid of the high polish finish- paint won't stick to it! It's important to still polish the ring first to get a nice smooth finish.

First rub the entire ring with a coarse Scotchbrite pad. Now spray the ring with a primer and follow this with a silver base coat. After the silver base coat has dried spray the ring with several coats of translucent green. Then give the ring a final clear coat to protect it.

All the paints I used were made by House of Kolor. The particular colors are:

FBC-02 Orion Silver fine metallic base

K0902 Organic Green Kandy

The paint is available in small quantities here:

<http://www.blackgoldweb.com/HouseOfKolorAerosolCanPaint.html>

It's important to stay with only one type of paint as certain types of paint can melt previous layers.

That's it! There are advantages and disadvantages to each method of ring construction- just choose the right one for you and go for it.

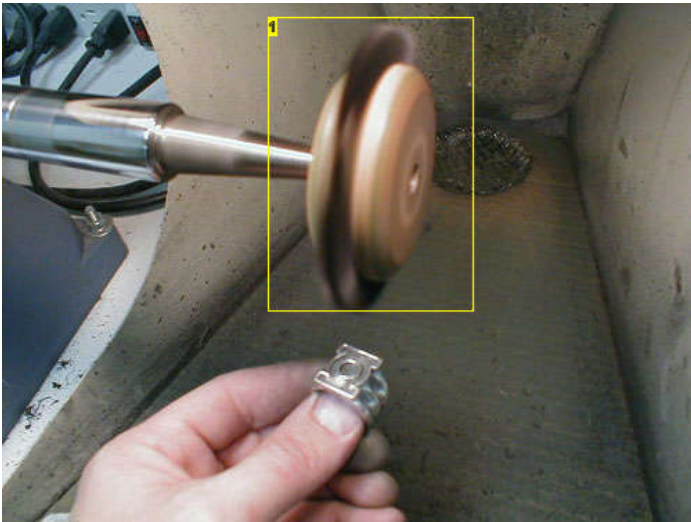


Image Notes

1. polishing brush- this is good for detail areas and can be used with both tripoli and rouge

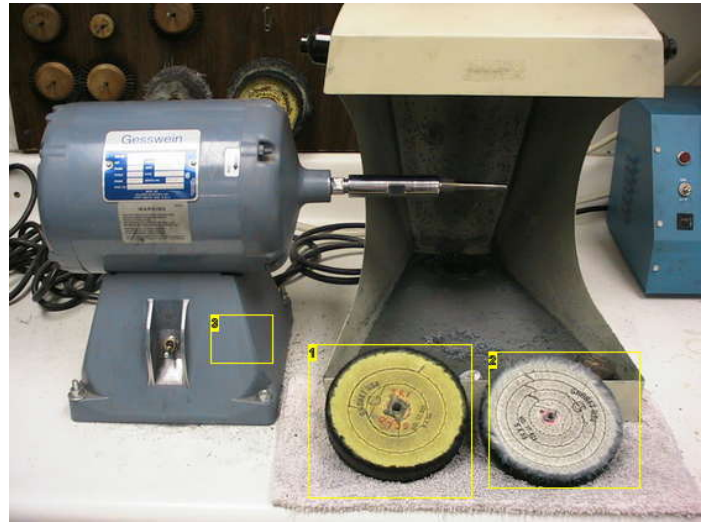
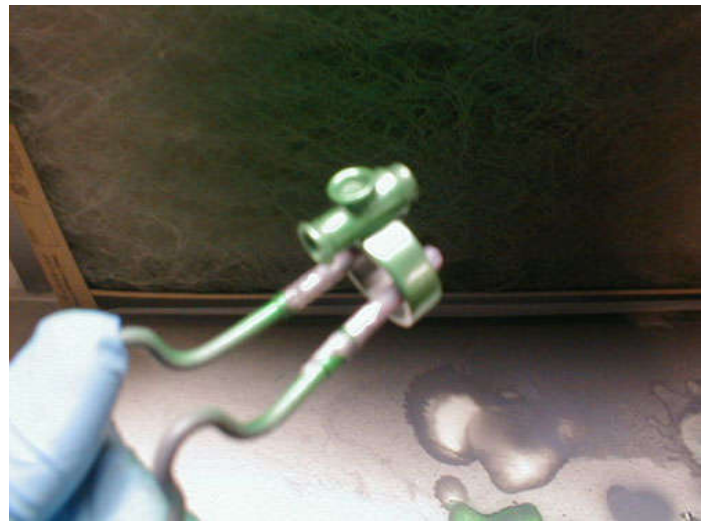


Image Notes

1. tripoli buff
2. rouge buff
3. polishing motor







Related Instructables



How to Make a Green Lantern Power Battery (Hal Jordan's)
by uniqueutopia



Green Lantern Ring - Made of Wood!! by aintMichael



Wooden rings (Photos) by aintMichael



Ring With Personalized "Jewel" by aintMichael



How To Enter the Halloween Contest by Contest Robot



Appl-O-Lantern - Try it! (Photos) by lukethebook333

Comments

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clee-1 says:

Mar 8, 2011. 2:29 AM [REPLY](#)

I love ur rings!!! its so pretty... I want to have them... do u have any other simple ones that I could use for my science project?? >_<



Honus says:

Mar 8, 2011. 7:15 AM [REPLY](#)

Thanks! I don't currently have any other designs.



Gnechanic says:

Feb 20, 2011. 2:59 PM [REPLY](#)

Do you know any work around or substitute for having to buy/use the wax sprues. I don't think my michaels store will carry them and that's where I'm going for my supplies. couldn't you just use some left over modling wax to make some up or use some plastic tubing (thinking of my spare air tubes for my fishtank). What I know about silicone is that it's nonstick, it shouldn't stick to the plastic during curing and the model being molded doesn't have to be completely wax, right -other materials can be used: metal, plastic, etc.? thanks. first timer molder-caster.



Honus says:

Feb 20, 2011. 3:56 PM [REPLY](#)

You can use whatever you want to shape the ring model and sprues- you could even use modeling clay.



Gnechanic says:

Feb 20, 2011. 7:05 PM [REPLY](#)

thanks, nice to know modeling clay wil work; I get them free at the school sometimes :D compliments on your craftsmanship! Those wax rings look so smooth!



Slayerfan666 says:

Feb 14, 2011. 7:44 PM [REPLY](#)

Green Lantern is the best.



mr.squeakers says:

Nov 26, 2010. 7:38 AM [REPLY](#)

why dont you sell these



Honus says:

Nov 26, 2010. 8:51 AM [REPLY](#)

Because DC is extremely protective of their intellectual property.



AwesomeSwordGuy says:

Nov 15, 2010. 6:12 AM [REPLY](#)

how do you get that jewelers wax?



Honus says:

Nov 15, 2010. 8:35 PM [REPLY](#)

It's listed in step 2.



melcrowne says:

Sep 13, 2009. 6:33 PM [REPLY](#)

I wanted to mold a clear epoxy sheet to put in front of my kiddos television in the playroom. The tv is 55" x 62" and I have build a wooden casing for the tops and sides. I just want a clear plastic type material in front so they do not damage the tv. I looked into plexi and such but was not impressed. Would this be an option? If so would I build a mold out of wood?



yellowcatt says:

Nov 10, 2010. 12:45 AM [REPLY](#)

I think you would have problems getting both sides of home cast resin perfectly flat. You would probably be better buying a sheet of cast acrylic cut to the size you require. This should be a bit bigger than the screen to allow for fixings.

There are many places where you can buy cast acrylic I have bought materials from <http://www.westwardplastics.co.uk/index.php> and found them to be reasonable, I was in Bristol and collected in person to avoid delivery charges and they let me take some useful sized bits of plastic from their scrap bin.



Honus says:

Nov 10, 2010. 4:33 AM [REPLY](#)

The other problem with trying to cast something that large is air bubbles in the casting. You would need to cast the entire thing in a vacuum chamber and it would never be as clear as Acrylic sheet.



zach1080 says:

Oct 24, 2010. 3:26 PM [REPLY](#)

where you buy ring wax?



Honus says:

Oct 24, 2010. 5:25 PM [REPLY](#)

The supplier and part number are listed in step 2.



TheAlmost says:

Sep 29, 2010. 12:03 PM [REPLY](#)

do you embed the LED into the finished ring? wouldn't that be difficult to carve without breaking?



Honus says:

Sep 29, 2010. 4:22 PM [REPLY](#)

Yep- just carve out an area in the ring using a Dremel.



TheAlmost says:

Sep 29, 2010. 11:36 AM [REPLY](#)

oh my gosh this is SO cool! I have been looking for a decent light up Hal Jordan ring for YEARS (I'm a bit of a comic nerd!) How much does this cost to make?



Honus says:

Sep 29, 2010. 4:21 PM [REPLY](#)

Figure around \$70 or so for the materials to make the glowing ring (not including all the tools.) Of course that will supply enough casting resin to make a lot of rings.



ardrhi says:

Sep 12, 2010. 6:38 AM [REPLY](#)

Wow. A friend of mine had an oven like that in his dorm room at college. It got to insane temperatures. He used it to bake frozen pizzas in about 5 minutes instead of 20, and they were amazingly delicious. He got it out of the chem lab's trash, and was always worried a little about what kind of weird chemicals might be leaching out of the walls when he used it for food.



comicfreak4 says:

Apr 12, 2008. 10:38 AM [REPLY](#)

wouldnt the wax melt?



ardrhi says:

Sep 12, 2010. 6:33 AM [REPLY](#)

You don't *wear* the wax ring. You use the wax ring to make a mold in silicone, then make a hard resin casting in the mold. The cast ring is what you wear.

And even if you did put an LED in wax, LEDs don't emit heat. But your hand does.



Dr_Defenestration says:

Sep 2, 2010. 11:27 AM [REPLY](#)

I was just wondering which brick and mortar stores would sell the wax. I keep calling around and asking for Jewelers Wax and most have never heard of it before. Should I say something else?



Honus says:

Sep 2, 2010. 6:24 PM [REPLY](#)

No idea- maybe they don't carve their own wax models or do casting in house. You might try asking for ring wax or asking them what they use when they carve wax models.



jbmalik says:

Aug 21, 2010. 4:20 PM [REPLY](#)

Looks like this guy figured out how to modify a 'regular' GL ring with an LED, and he's got it up for sale on EvilBay: <http://bit.ly/GLring1>



GLTN2814 says:

Aug 10, 2010. 9:46 PM [REPLY](#)

Hey great tutorial, I was wondering what is a good way to get the wax carving so perfect with the logo. I was planning on making all of the Lantern Corps Rings.



Honus says:

Aug 10, 2010. 10:03 PM [REPLY](#)

You just have to go slow and take your time- there really isn't a real trick to it.



dragonmat89 says:

Aug 6, 2010. 1:11 AM [REPLY](#)

Awesome tutorial, I'm sure going to give it a go. One quick question: rather than mess around making a wax pattern, could you see any problem with using an existing ring as a template for the resin mold (i.e. an adverse reaction between the plastic of the ring and the RTV)? I would of course attach something to act as sprues first, I'm just worried about damaging the ring I have. Thanks a lot.



Honus says:

Aug 6, 2010. 5:41 AM [REPLY](#)

You absolutely can mold an existing ring- it's done all the time in the jewelry industry. The only thing you have to be careful of is cutting the mold open so you don't damage the ring.



Honus says:

Aug 6, 2010. 5:39 AM [REPLY](#)

There's absolutely no problem using an existing ring- it's done all the time in the jewelry industry. You just have to be careful cutting the mold open so you don't damage the ring.



Dr_Defenestration says:

Aug 4, 2010. 10:10 PM [REPLY](#)

This is an excellent tutorial. Thank you so much for posting this. I was just wondering in the ballpark how much it would cost if I were to enlist a jeweler to cast my sculpted ring in silver?



Honus says:

Aug 5, 2010. 11:30 AM [REPLY](#)

Sterling Silver averages around \$1.25 per gram for castings so take your wax weight and multiply that times 10.5 (specific gravity of Sterling) to get your casting weight. Of course that doesn't include any sprue removal, flask charges or cleanup costs. I'd take it into a local jeweler and see what they say.



Dr_Defenestration says:

Aug 5, 2010. 9:15 PM [REPLY](#)

Thank you so much for your quick response. I also have another question. Upon reviewing the available wax, would I be better for opting with the 1" x 1-1/8" or the (hard version) or the 1-3/16" x 1-5/6." Any assistance would be greatly appreciated.



Honus says:

Aug 5, 2010. 9:30 PM [REPLY](#)

I'd go for the larger size- it's always a lot easier to remove wax than to try and add wax to make a larger piece.



Bladededge says:

Jul 30, 2010. 1:31 PM [REPLY](#)

Fantastic work Honus!

I have a question or three:

****1**** Any thoughts on getting a more -uniform colour spread through the resin - watching the videos, the green seems to 'sink' to the ring face, leaving very little tint to the band of the ring itself. Maybe a droplet added at the very end of the pour to slither down the sprue?

****2**** Any advice on getting rid of any air bubbles if one doesn't have a pressurized chamber? I wonder... would a low-setting vibration work - like sitting it on a clothes dryer? Or would the heat from the dryer mess with the resin setting properly?

****3**** Any thoughts on some way to be able to turn the ring on and off without removing it and then the battery? ... I had the thought of a small metal hinge with non-conductive pad to act as a 'switch' when the ring is pulled closer to the finger (such as when one closes their fist), also a more-elaborate working where a lead wire is run on the palm-side from the ring to both the end of the middle finger to a metal tip and similarly to the palm, no light when the hand is open, the ring lights up when one closes the hand and connects the two metal discs and closes the circuit... or a small disc to be slid between the finger and the underside of the ring where the battery sits... but the former I would think to be to finicky and the latter wouldn't solve the issue of having to fuss with the ring to light it up. Maybe a lead that wires down to a switch on the wrist? Pull a John Stewart Animated Series 'grab the wrist with the other hand' action? But it would still require a glove to pull it off to hide the wiring. Hmm... The lead-with-wires would only really work with a costume with a glove... and the ring would have to become a permanent fixture. Not that I'm objecting to that per se, but my brother wants me to make him a Black Lantern version of the ring and he's not as avid a costume wearer as I am =)

Any thoughts you have would be greatly appreciated!



Honus says:

Jul 30, 2010. 9:13 PM [REPLY](#)

Thanks- glad you like it! To answer your questions- 1) The color is fine- you just have to mix it well. I'd use the Alumilite clear urethane resin and their green dye if I were to do it again. 2) Vibratory sanders work really well for getting rid of bubbles. Just set your mold on a piece of wood and then turn on the sander. 3) I've been thinking about this a lot lately. I'm thinking about having the LED soldered to a double sided PCB with the battery underneath it. The battery would have a wave washer separating it from the PCB so when you put it on your finger the battery would push upward making contact with the PCB (closing the circuit) and turning the LED on.



klazer39 says:

Jul 13, 2010. 3:59 PM [REPLY](#)

Honus. We all truly just respect. The fact you were even willing to share this with us even though we all. Can't. Make 1. And if you can honus? Mail me the instructions and materials I need to buy and tools. Thanks! Priyst3918@gmail.com



Honus says:
All the instructions, materials and necessary tools are right here!

Jul 13, 2010. 7:42 PM [REPLY](#)



hardlec says:
For all of us who can mainly dream about owning all the tools needed for these projects: Try your local community college and see if they have classes in Jewelry making. These classes fill up fast because a lot of people enroll in them just to have access to the tools and shop space. Please check with a legal expert about copyright and fair use. The Author is very right not to make items for other people.

Jun 17, 2010. 6:30 AM [REPLY](#)



nickodemus says:
Too bad you can't sell them, I'd certainly buy the Hal Jordan ring. :) Nice work.

Jun 14, 2010. 12:49 PM [REPLY](#)



gtreddragon says:
hey im only 16 and i don't have access to all that machinery but im a huge fan.. is there anyway i could purchase a ring like that?

Oct 3, 2009. 4:58 PM [REPLY](#)



Honus says:
Sorry I don't sell them!

Oct 4, 2009. 8:40 AM [REPLY](#)



Zaphod Beeblebrox says:
why not?!?!?!?!?!?

Dec 27, 2009. 5:44 PM [REPLY](#)



Honus says:
Copyright infringement- something DC doesn't take lightly. Read through the comments.

Dec 27, 2009. 7:00 PM [REPLY](#)



Zaphod Beeblebrox says:
well ifd you started mass producing them and selling everywhere that would be one thing but making a few and selling them to a couple of teenagers online

Dec 27, 2009. 7:18 PM [REPLY](#)

- 1 they would probably never even find out
- 2 if they did its not like they would track you down and kill you
- 3 they are not that expensive anyway u are not making a 1000 dollar annual profit or something just a few for a couple people online cheaply
- 4 is sewing sleeves onto a blanket illegal?(diy snuggie)



Honus says:
I've explained this time and again- it doesn't matter if you make money or not. According to copyright law, in a civil suit, an infringer may be liable for a copyright owner's actual damages plus any profits made from the infringement. Alternatively, the copyright owner may avoid proving actual damage by electing a statutory damage recovery of up to \$30,000 or, where the court determines that the infringement occurred willfully, up to \$150,000. The actual amount will be based upon what the court in its discretion considers just. (17 U.S.C. 504)Violation of copyright law is also considered a federal crime when done willfully with an intent to profit. Criminal penalties include up to ten years imprisonment depending on the nature of the violation. (No Electronic Theft Act, 18 U.S.C. 2319)

Dec 27, 2009. 9:06 PM [REPLY](#)

The bottom line is that it's against the law and it's just not going to happen so people need to stop asking.



CodeInstruct says:
Respect Honus, total and utter respect dude!!!

Jun 13, 2010. 4:25 AM [REPLY](#)



Zaphod Beeblebrox says:
as my mom says when my dad drives at the speed limit "Quit being such a boy scout!"

Dec 28, 2009. 6:53 AM [REPLY](#)



Honus says:
It's not a matter of being a Boy Scout- it's about respecting the rights of others. I always find it amusing how people with nothing to lose are so willing to stick out the neck of those who do. I'm a dad with three kids to take care of so I can't afford to take obvious risks with a corporation known for protecting its intellectual property.

Dec 28, 2009. 11:06 AM [REPLY](#)

If you feel it's not a big deal, then go ahead and make them and sell them.



Steve66oh says:
Honus - Much respect for the example you're setting for your kids! My son wanted to build a Soap Box Derby car... then he wanted to paint it as Grave Digger(TM). I told him we'd need permission from the trademark owner - we contacted them, they typed up an agreement, they approved our paint job, and now we have THE Official Grave Digger(TM) soap box derby racer!

May 23, 2010. 10:09 PM [REPLY](#)

It's not inconceivable that you could get the right to make licensed Green Lantern merchandise - if you were interested.

Anyway, I just wanted to say, Nice Job!

("GRAVE DIGGER" is a trademark of Feld Entertainment Motorsports)

[view all 279 comments](#)