THE BEGINNER'S GUIDE TO C ① S P H A Y ARMOR & PROPS

Bonus Project

 $J \oplus Y \mathbb{C} \mathbb{E}$ $\forall \mathbb{A} \mathbb{N} \mathbb{D} \mathbb{E} \mathbb{N} \mathbb{G} \oplus \mathbb{O} \mathbb{R}$ Founder of Pretzl Cosplay



MATERIALS

Graceful Magic Staff templates (digital pattern sheet)

3 (1-inch [2.5-cm]diameter) pieces PVC pipe (for a 6-foot [1.8-m] staff:

Pipe A (the top): 19½ inches (50 cm) long

Pipe B (the middle): 23¹/₂ inches (60 cm) long

Pipe C (the bottom): 22¹/₂ inches (57 cm) long

2 pipe connectors that fit the PVC pipes

1 (24 x 12-inch [60 x 30-cm]) piece of 2mm EVA foam

1 (24 x 22-inch [60 x 55-cm]) sheet of 10mm EVA foam

1 (18 x 14-inch [45 x 35-cm]) sheet of 6mm EVA foam

Contact cement

3 feet (90 cm) of EVA foam prefab triangular bevel (I used 10mm wide, high profile triangular bevel)

31½ inches (80 cm) of EVA foam prefab half-round dowel (I used 15mm wide)

25½ inches (65 cm) of EVA foam prefab triangular bevel (I used 20mm wide, high profile)

25¹/₂ inches (65 cm) of EVA foam prefab half-round dowel (I used 10mm wide)

12¹/₂ inches (32 cm) of EVA foam prefab half-round dowel (I used 20mm wide)

25½ inches (65 cm) of EVA foam prefab triangular bevel (I used 20mm wide, low profile)

Flexible primer (black) (continued)



GRACEFUL MAGIC STAFF With Decorated Handle

Thank you so much for pre-ordering *The Beginner's Guide to Cosplay Armor and Props!* As a way of showing our thanks, here is a bonus project to get you started. This staff has an interesting silhouette and will be a great addition to any costume for a spellcasting character or you can pair it with other projects in the upcoming book to complete a full sorceress' look. In this project, we're going to be using a variety of prefab EVA foam bevels to create awesome details on the handle of the staff. The prefabs are a great option for beginners to add beautiful details to a prop. And even though this staff is quite large, we'll use PVC pipes so that it can be taken apart in three separate pieces. This makes it much easier to store the prop and travel with it.

PREPARATION

If you use a thinner or a thicker PVC pipe, you'll need to adjust the templates accordingly. For example, if you are using a thicker pipe, that means the rectangles of foam to cover the pipe will need to be wider and the dowels for decorating will need to be longer in order to fit around the pipe. If you want to make a longer or shorter staff, you can adjust the lengths as needed.

Using the 2mm EVA foam, cut one (19 x $3\frac{1}{2}$ -inch [48 x 8.8-cm]) rectangle and two (21 $\frac{1}{2}$ x $3\frac{1}{2}$ -inch [55 x 8.8-cm]) rectangles.

Using the 6mm EVA foam, cut one $(15\frac{1}{2} \times 4\frac{1}{4}-inch [39.5 \times 11-cm])$ rectangle, one $(6\frac{1}{4} \times 4\frac{1}{4}-inch [16 \times 11-cm])$ rectangle and two $(4\frac{1}{4} \times 4-inch [11 \times 10-cm])$ rectangles. The 2mm and 6mm rectangles will be used to cover the PVC pipe.

Cut the layers for the wings and the diamond base out of the 6mm and the 10mm foam, as shown on the template.

Use the 6mm foam to cut the triangles for the gems, and cut all edges at an inward angle.

Acrylic paint (dark brown, metallic purple, pearl, gold and silver)

Optional: Oil paint (black) Optional: Satin and glossy (spray) varnish

Note: The 6mm thick EVA foam can also be swapped with 5mm thick EVA foam if that is easier to find.

TOOLS

Paint marker Craft knife Cutting mat Heat gun Safety tools, including a respirator, dust mask and safety glasses Rotary tool with sanding

drum (120-grit) or regular sandpaper

Brushes for painting

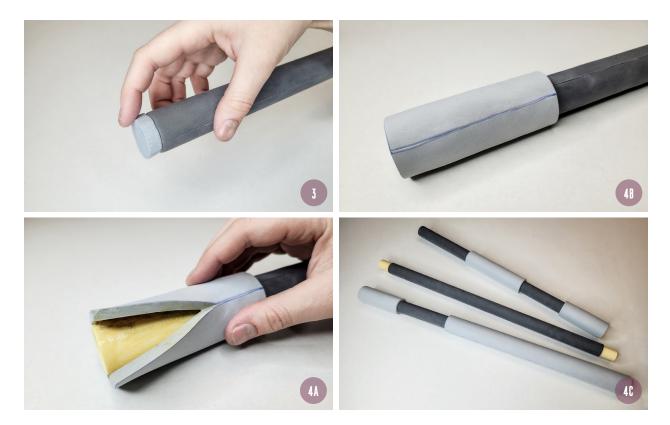


BUILDING THE HANDLE

1. Set pipe C aside. Glue a connector onto one end of pipe A and pipe B with the contact cement. Don't wait for the contact cement to get tacky, but put the connector and the pipe together immediately while the glue is still wet.

Note: The PVC pipe connectors are used so the staff can be taken apart into three pieces for easier storage/traveling. If you don't mind the size of the complete prop, you can skip the connectors and use one continuous piece of PVC pipe. **2.** Take the three long rectangles of 2mm EVA foam and check which length needs to go on which PVC pipe. If the rectangles are too long or wide, cut them. Glue the foam around the PVC pipes. To do this, apply a thin layer of contact cement on both the PVC pipe and the EVA foam piece, and when the glue is tacky, wrap the foam around the PVC pipe. Apply some contact cement where the two ends of the EVA foam connect to create one continuous surface of EVA foam.

When gluing the foam over the PVC pipe, avoid the connectors. Also avoid the parts of the pipe where the other connectors will go. If you wrap them in foam completely, it will cause the connectors to malfunction.



3. To close the bottom, cut a circle of 10mm EVA foam in the same diameter as the PVC pipe with the foam around it and glue it to the bottom of pipe C.

4. Now take the rectangles of 6mm EVA foam, and pipes A and C (the ones with the connectors and thin EVA foam glued onto them). Leave pipe B aside for this step.

Start with the bottom part of the staff (pipe C) and glue one of the $4\frac{1}{4} \times 4$ -inch (11 x 10-cm) pieces of 6mm EVA foam around the tip where the connector is. Also put glue on both edges of the foam that will be connected, so there will be one continuous surface of foam around the staff.

Glue the other $4\frac{1}{4} \times 4$ -inch (11 x 10-cm) piece of 6mm EVA foam around the tip of the top of the staff (pipe A) where the connector is. Now you have two rectangles of 6mm EVA foam left. Take the smallest one and glue it around the pipe A, $6\frac{1}{2}$ inches (17 cm) away from the tip. This leaves room to add the diamond base shape that we will craft later.

Take the remaining 6mm EVA foam piece (the largest), and glue it around the very bottom of pipe C.

Now your three pieces of the staff are covered in EVA foam layers. In the photo, you can see from top to bottom: the top of the staff (pipe A), middle of the staff (pipe B) and the bottom of the staff (pipe C).

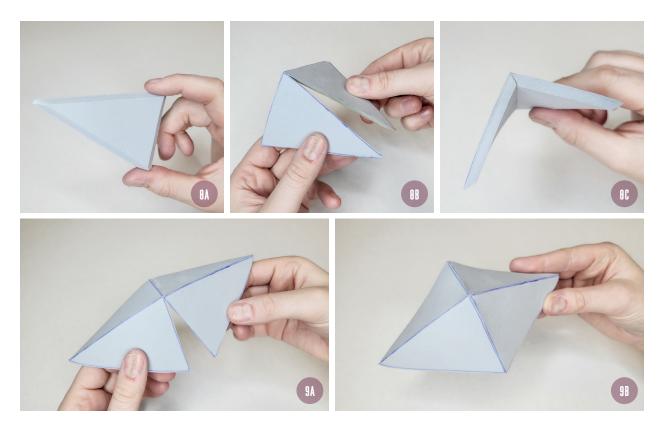


BUILDING THE DIAMOND TOP

5. Place two of the three diamond base shapes of 10mm EVA foam on the cutting mat, and cut the two inner edges at an angle. It doesn't need to be super neat because it will be on the inside of the piece. It's just important to cut it angled so the diamond shape will fit snug on the PVC pipe later.

b. Start stacking the layers for the diamond shape together to form a thick diamond-shaped block, with a hole in the middle for pipe A. Use the contact cement to stack each layer. Take a look at the photos to see the order of the layers.

1. Place the top of the staff inside the opening of the diamond. Take the remaining 6mm-thick diamond shape (the top layer) and glue it on the stack from step 6. Make sure not to get glue on the staff, because it needs to be taken out again.

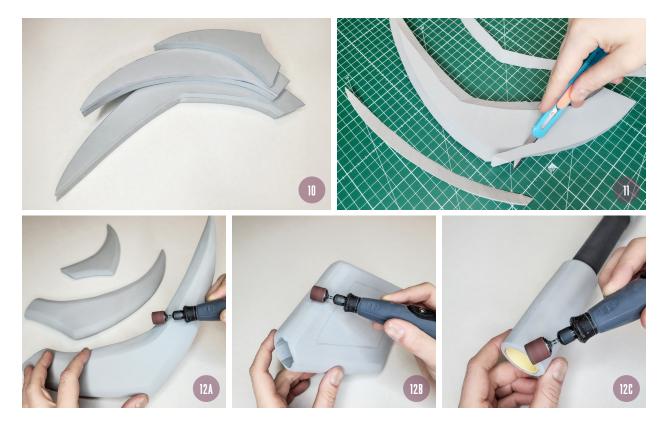


BUILDING THE GEM

8. Before starting, make sure the edges of all eight triangle pieces are cut at an inward angle.

Take two triangle pieces and apply a thin layer of contact cement to the long edges (mirrored edges). When the glue is tacky, attach the two pieces. Because of the angled edges, there is now a sharp corner on the top. Repeat this three more times to get a total of four gem halves.

9. Glue the two halves of a gem together. Repeat this for the other gem too.



PREPARING THE WINGS

10. The staff has six "wings," three on each side. To make these, stack and glue the layers together to create thicker pieces. The top wings are the biggest and thickest and will need two layers of 10mm EVA foam. The middle wings are medium-sized and will need a 10mm and a 6mm layer. The bottom wings are the smallest, and require just one layer of 10mm EVA foam. So, the wings vary in thickness between 10- and 20mm.

SHAPING THE DIAMOND AND WINGS

11. With a sharp craft knife, carve the edges of the wings to be beveled. Also cut the edge away from the stacked diamond shape. This doesn't need to be perfect now because it will be sanded smooth later.

12. Using the rotary tool with 60-grit sanding drum, start smoothing and further shaping the wings and diamond. Switch the sanding drum for a finer one (120-grit), and sand the edges of the wings and the diamond shape smooth. You can also sand the glued edges of the gems and the edges on the layers on the staff handle parts if you like. The result of the sanding will look nicest when using a rotary tool, but you can also use regular sandpaper. After the sanding is done, clean the foam pieces by removing all of the dust.







ASSEMBLING THE TOP OF THE STAFF

13. Glue one gem on either side of the diamond base. Then apply some contact cement on the bottom end of the diamond and around the top of the staff handle, where it will be connected, and put them together immediately. Don't wait for the glue to dry, because then you won't be able to get it in place.

14. Now that the diamond with the gems is attached to the top of the staff, take the wings and attach them to both sides of the staff using the contact cement.

DECORATING THE STAFF WITH DOWELS AND BEVELS

15. Measure the 10mm wide triangular-shaped bevel around the gems and cut it to the right lengths to make two gem settings. In order to achieve nice pointy corners on the tips of the gem setting, make sure to cut the ends of the pieces of bevel diagonally. You will need four small pieces of bevel for each gem.

16. Glue the bevels around the edge of the gems using the contact cement. Also glue the sides where the two ends of the bevel meet to create one continuous bevel.

17. Take both the 15mm wide half-round dowel and the 20mm wide high profile triangular-shaped bevels and wrap them around the bottom part of the top of the staff (pipe A), and mark how long the pieces should be to fully wrap around. Cut two of the half-round dowel and one of the triangular bevel and glue them around the staff base. Also glue the sides where the two ends of the bevels meet to create one continuous bevel to go around the staff.





18. Now take the bottom part of the staff (pipe C) and the remaining EVA foam half-round dowels and triangular bevels. Wrap them all around the staff and mark how long they should be to fully wrap around it and cut them to the right lengths. Glue them around the staff at different heights to create an interesting silhouette for the prop.

The order in which I placed the different dowels/bevels on the staff, from top to bottom is: 15mm half-round, 20mm high profile triangular, 15mm half-round, 20mm half-round, 10mm half-round, 20mm low profile triangular, 20mm high profile triangular, 20mm low profile triangular, 10mm half-round, 15mm half-round, 10mm half-round, 20mm low profile triangular, 20mm high profile triangular, 20mm low profile triangular, 20mm high profile triangular, 20mm low profile triangular, 10mm half-round, and ending with 20mm half-round. That's a total of sixteen pieces around the bottom part of the staff. You can also look at the photos to see where and in what order to place the dowels/bevels, or create your own design. When you're happy with your decorations, heat the whole staff with the heat gun to heat-seal it. Be careful not to heat the PVC pipe too much because it can deform under the heat, making the connections malfunction.

PRIMING AND PAINTING

19. Apply a flexible primer to all three staff pieces, but avoid the exposed PVC pipe, otherwise the connectors might not work well. Use as many coats of primer as needed until you like how the surface looks. I used two layers of HexFlex black. Let the primer dry for two to four hours.

20. Apply a layer of brown acrylic paint on the staff. This will serve as the shadow color for the gold and purple paint. Add more paint on the raised parts and less paint on the edges where shadows naturally occur, to create some initial depth. If your primer isn't black, you can also add some black paint on the shadow parts. Leave the brown paint to dry for two to four hours.



21. For the gems, I used metallic purple acrylic paint (Sangria Purple from Cospaint). Dab it on the gems with a brush, instead of brushing it on, to be able to get a nicely covering layer of paint and create a nice gradient. Apply more paint on the ridges and on the middle of the gem and stay away from the corners so the shadow color can still show through. Acrylic metallic paint usually dries really quickly, so leave it to dry for one hour.

22. Apply some gold metallic acrylic paint on the whole staff, except the gems and gem settings. (I used the color 14K Gold from Cospaint.) Try to apply the most paint to the raised surfaces and less on the shadow parts. Leave it to dry for one hour.

23. To make the gems stand out, mix a lighter color of the metallic purple by mixing pearl into it. (I used Pearl White from Cospaint.) Dab this lighter purple on the raised edges of the gem and with even less paint on the brush, apply a gradient to the surface of the gem. Leave it to dry for one hour.



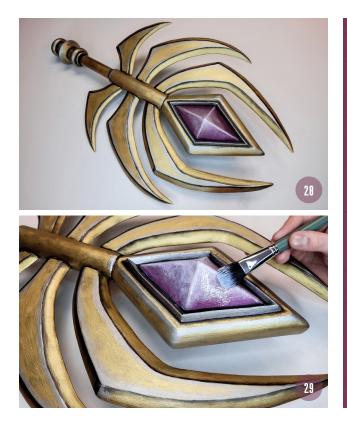
24. Apply some of the pure pearl color to the raised parts of the gems to make them pop even more. Fan out the gradient by dabbing little amounts of paint on the gems. Leave the highlights to dry for one hour.

25. Apply some silver acrylic paint to the gemstone settings. (I used Dark Silver from HexFlex). Use a thin brush so you can be as precise as possible. Leave it to dry for one hour.

26. Add highlights to the golden parts of the staff by applying little bits of the silver paint to the raised edges. This will bring more depth to the staff so it will look more three-dimensional.

21. If you want to take your paint job to the next level, apply some black oil paint to the edges that could use some shadows. Apply with a thin brush first, and then, with a larger, fluffier brush, blend the still wet paint out in a nice gradient.

Note: Oil paint takes multiple weeks to dry.



28. To protect the paint job either spray or paint over the paint with a satin acrylic varnish.

Note: If you applied the oil paint shadows, go for the spray varnish to coat the whole piece. Oil paint dries very slowly, and it can take multiple weeks to dry, so a brush-on varnish could smear the oil paint in this step.

29. To make the gems look more realistic, apply some glossy acrylic varnish only to the gems. To avoid getting the glossy varnish on the whole project, I used a brush-on varnish for this job.

Get Creative! Ideas for Variations

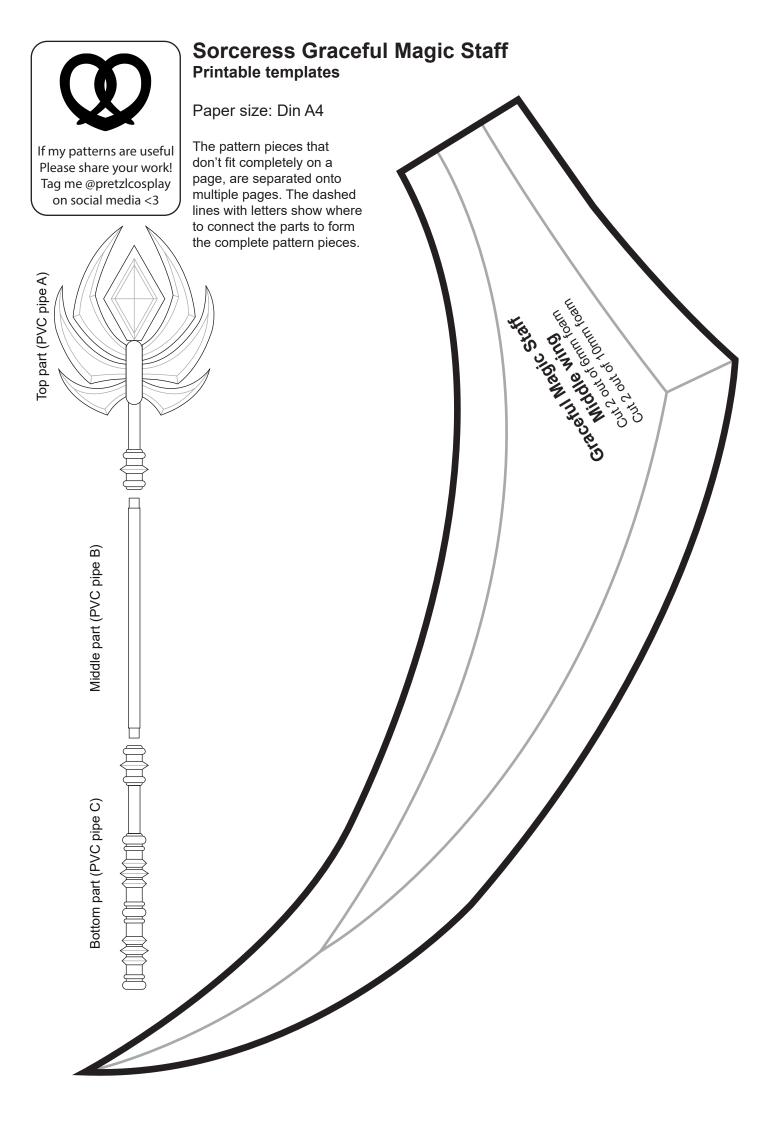
If you don't like the silhouette of the staff, personalize it by sketching your own version that fits perfectly with your character design.

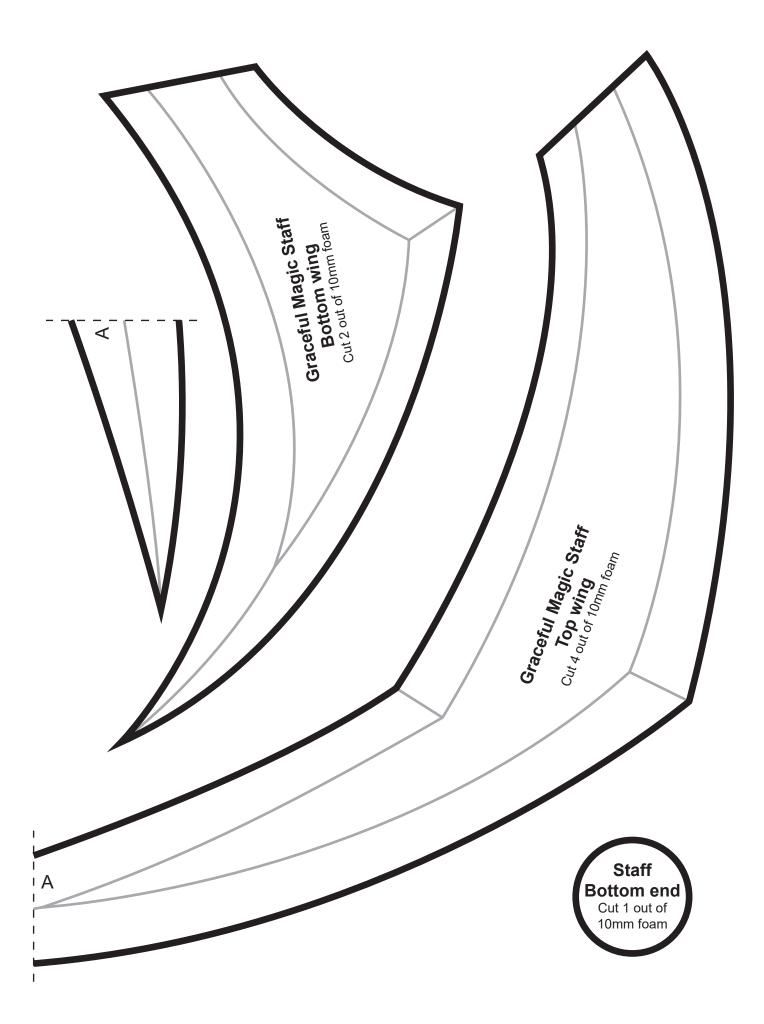
The staff can be made longer or shorter by adjusting the lengths of the PVC pipes. If you don't want it to consist of several pieces for storage, you can leave out the PVC pipe connectors and simply make one big prop. It's up to you!

EVA foam prefabs, like the triangular bevels, can be pricey if you buy a lot of them. Use this project as an opportunity to try and make your own out of EVA foam sheets (see page XX in full book).

Cut some strips of the fabric that you used for your costume to go with this prop and tie them on the top of the staff, just below the wings. When you walk about with your costume and prop, the wind can swoop up the pieces of fabric, which looks super pretty in photographs.







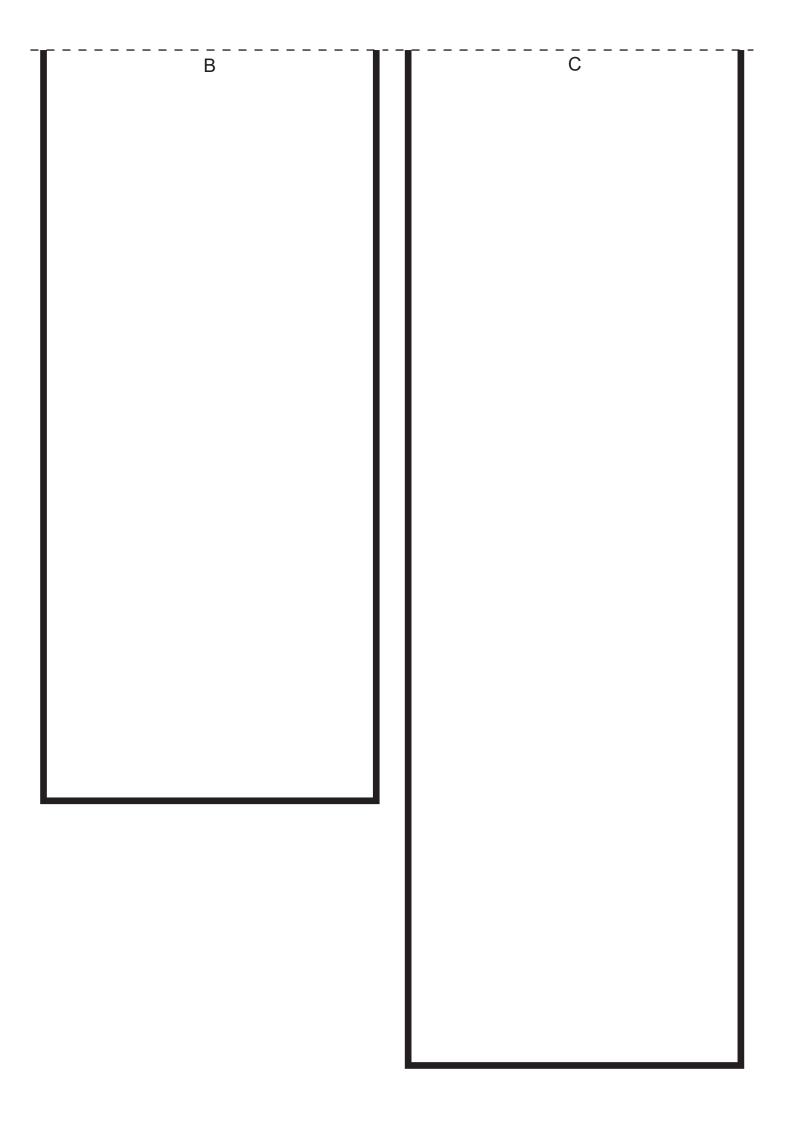
Graceful Magic Staff Rectangle to cover the PVC pipe with Cut 1 out of 2mm foam Graceful Magic Staff Rectangle to cover the PVC pipe with Cut 2 out of 2mm foam

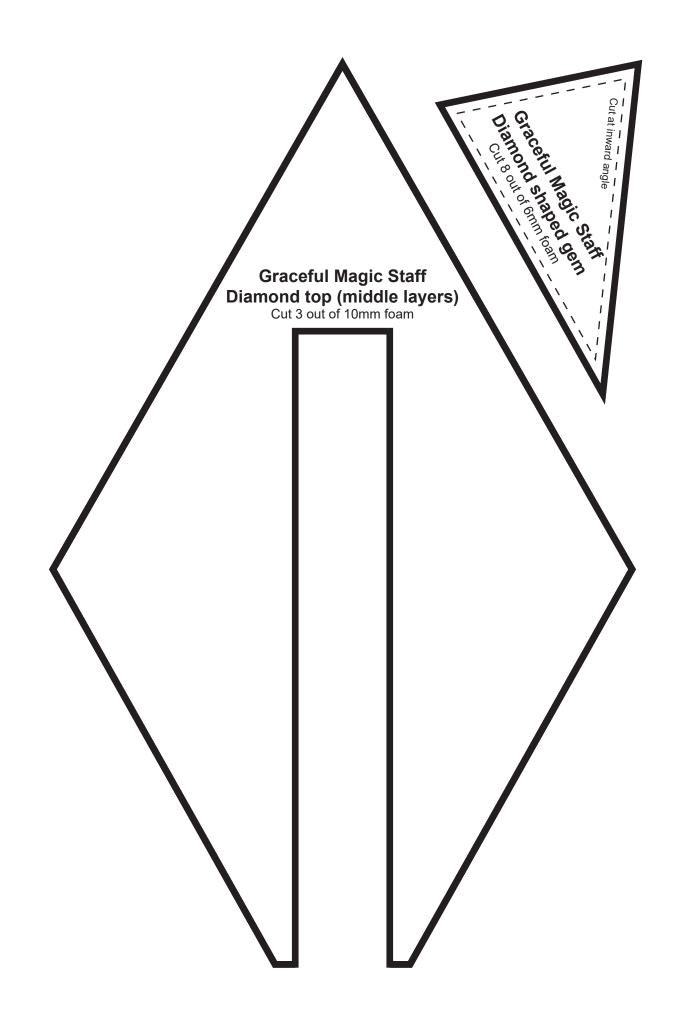
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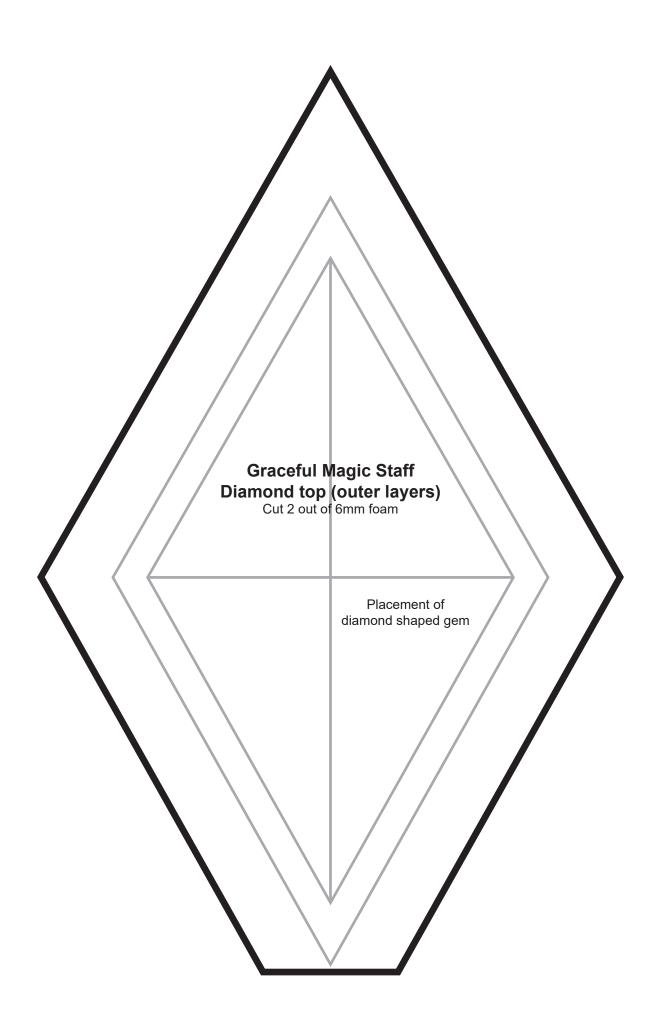
Graceful Magic Staff Rectangle to cover the PVC pipe with (second layer) Cut 1 out of 6mm foam	

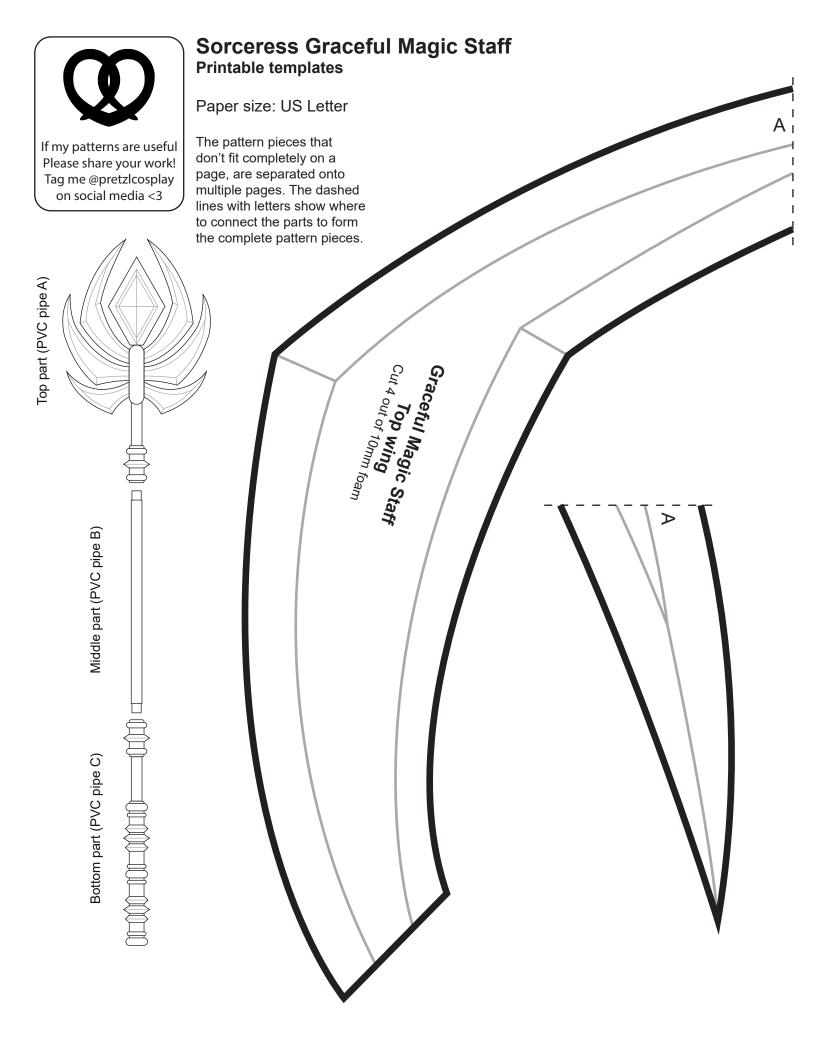
Graceful Magic Staff Rectangle to cover the PVC pipe with (second layer) Cut 2 out of 6mm foam

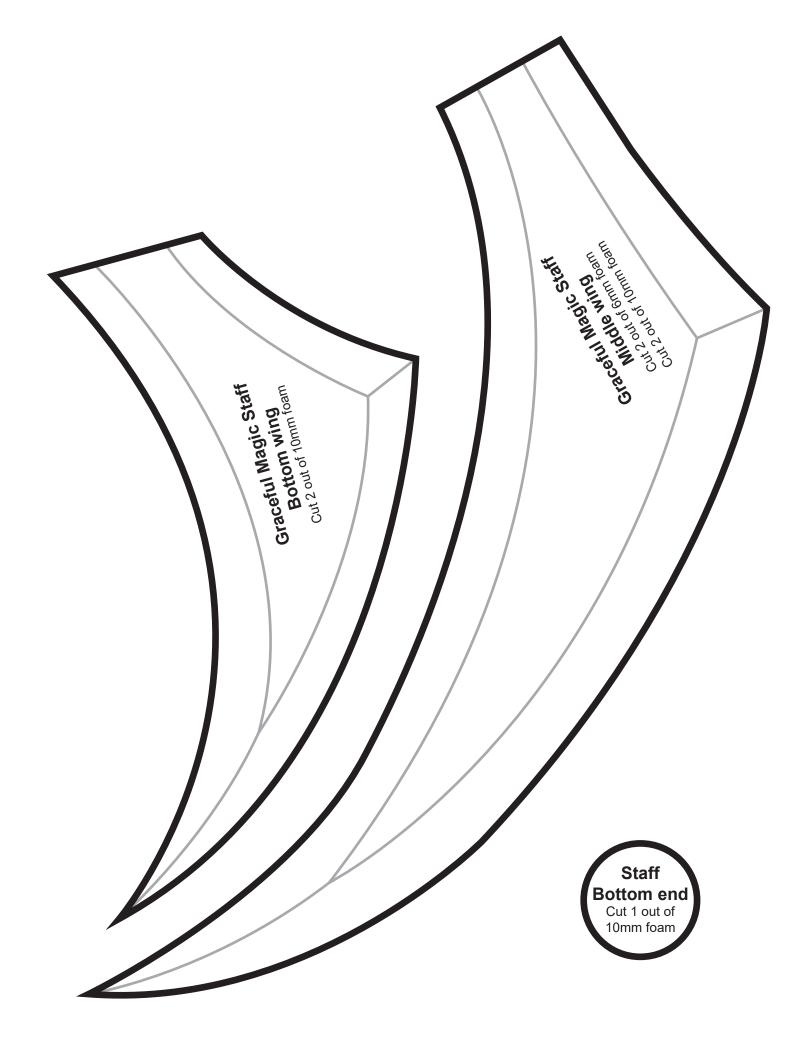
Graceful Magic Staff Rectangle to cover the PVC pipe with (second layer) Cut 1 out of 6mm foam

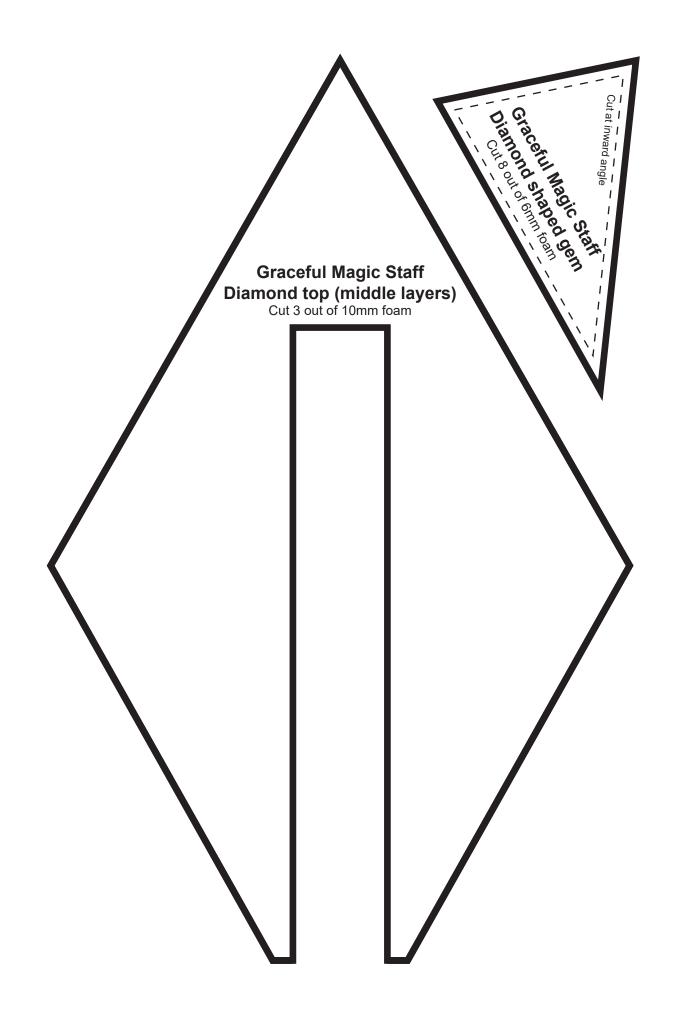






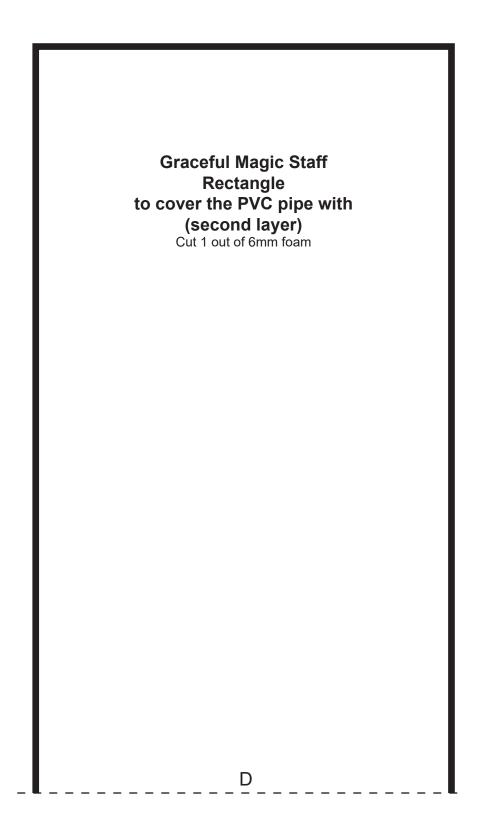






Graceful Magic Staff Rectangle to cover the PVC pipe with Cut 2 out of 2mm foam	ß
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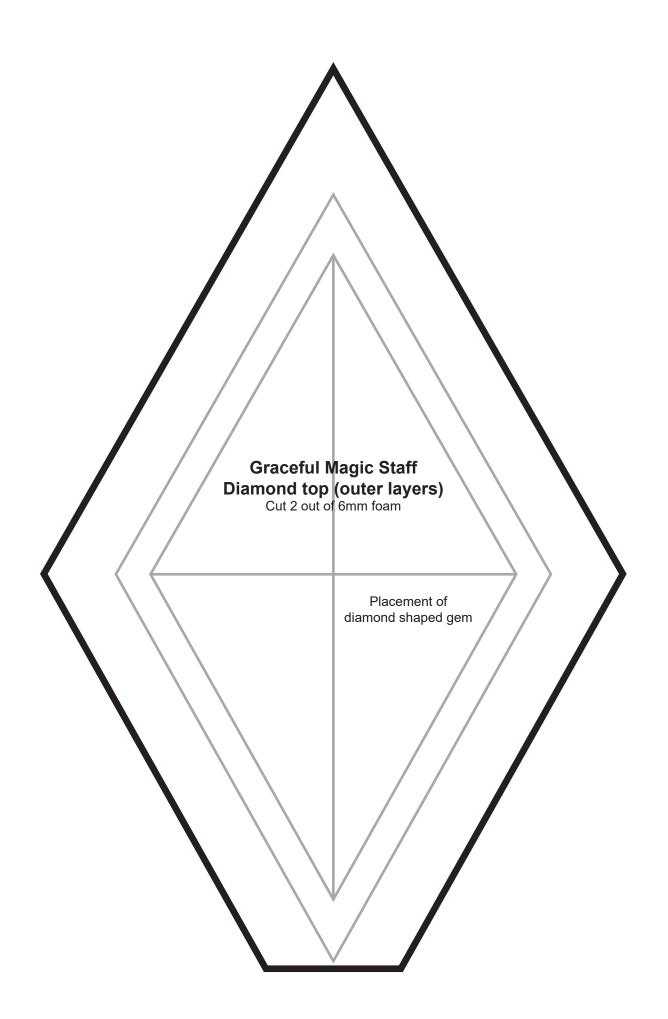






Graceful Magic Staff Rectangle to cover the PVC pipe with (second layer) Cut 1 out of 6mm foam

> Graceful Magic Staff Rectangle to cover the PVC pipe with (second layer) Cut 2 out of 6mm foam



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