PROJECT: Bat-Signal (The Dark Knight)

Bat-Signal

Assembly Instructions

Modelled by Arquit3D

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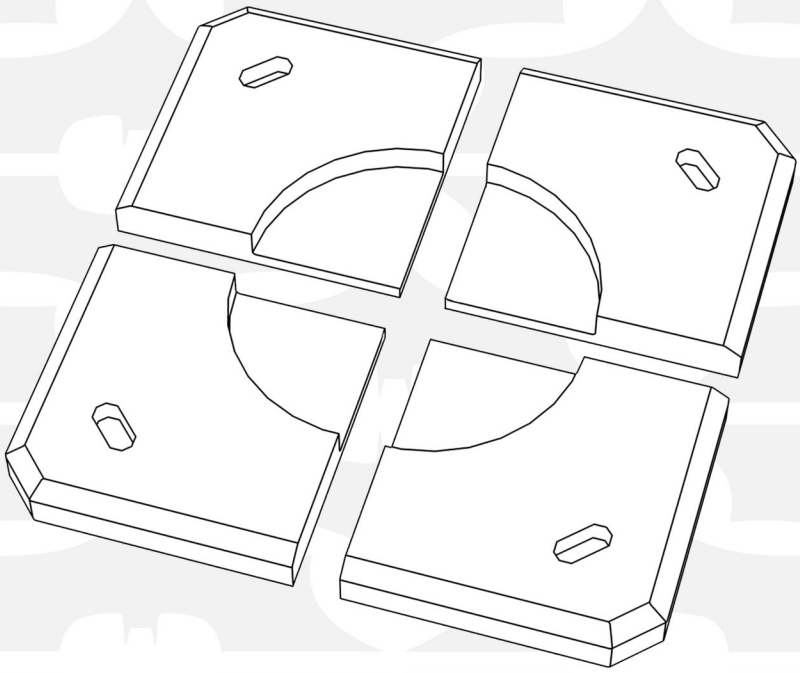
1



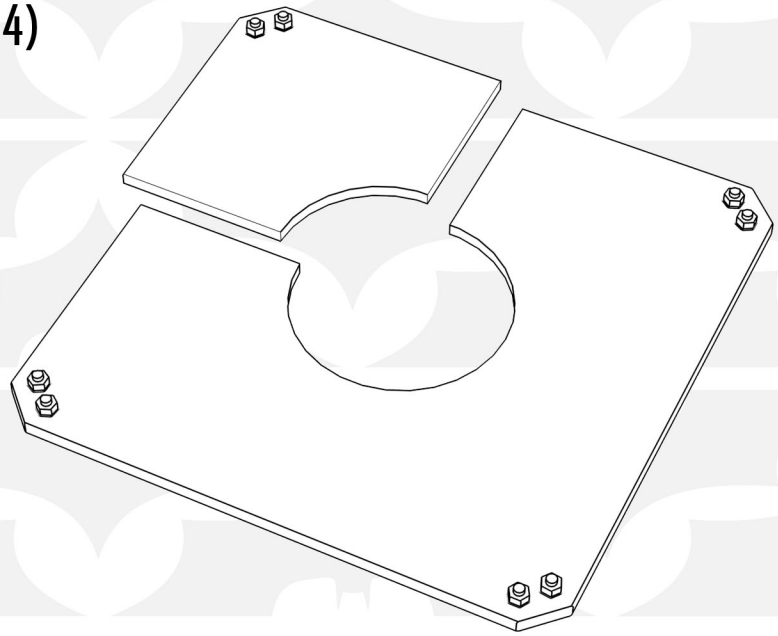
Glue all four **A(1-4)** pieces together.
Alternatively, print piece **A** if it fits in your print bed.

Be sure to sand the inner recess properly for a smooth rotation of the lamp.

2

In the same way, glue parts **B(1-4)** together to form the cover or print **B** instead.

At this point, cut the bolts to the right size and screw them in the corners with the help of **B-adapters (x4)**.



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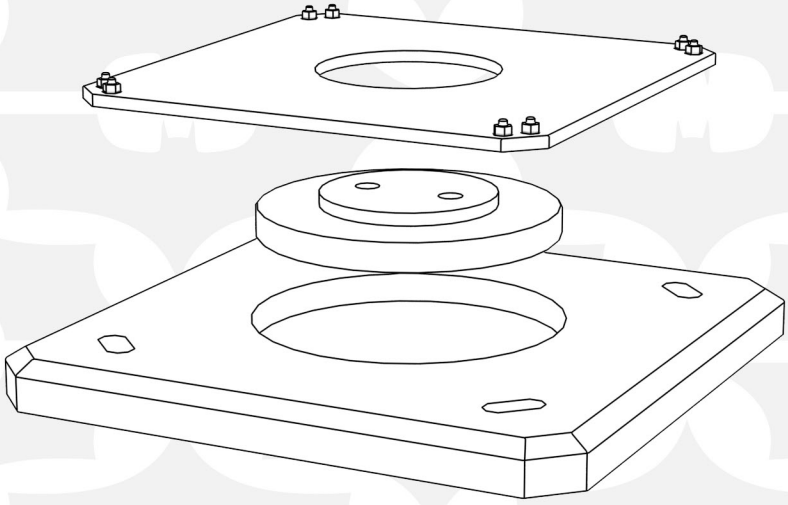
3



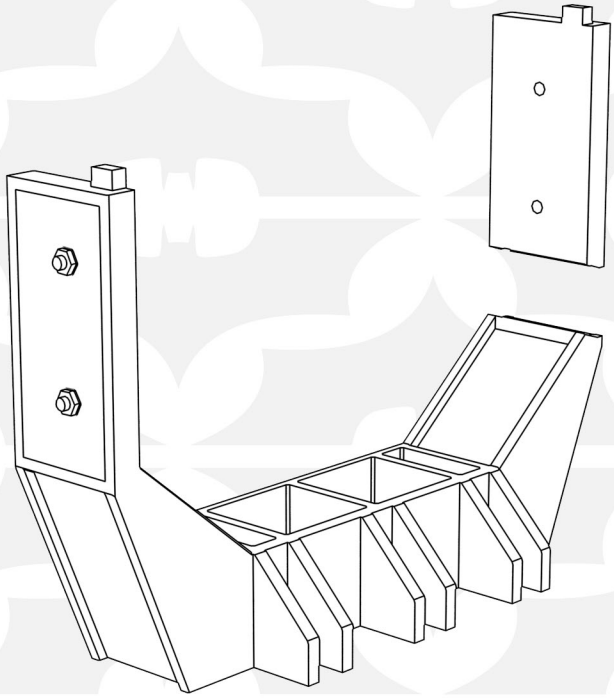
Take assembled parts **1** and **2** and fit the **B-adapters** in the corners, sandwiching part **C** in between. Ensure that it rotates freely.

Part **2** should fit tight by itself. In case it is loose, apply some drops of glue in between **1** and **2**.

4

Glue pieces **F** into piece **E**, facing the flat areas inside.
Instead, print piece **FE**. Take into account the overhangs present.

F1 and **F2** are not identical, so be sure to print one of each.
Decorative screws can be placed now and cut to size.



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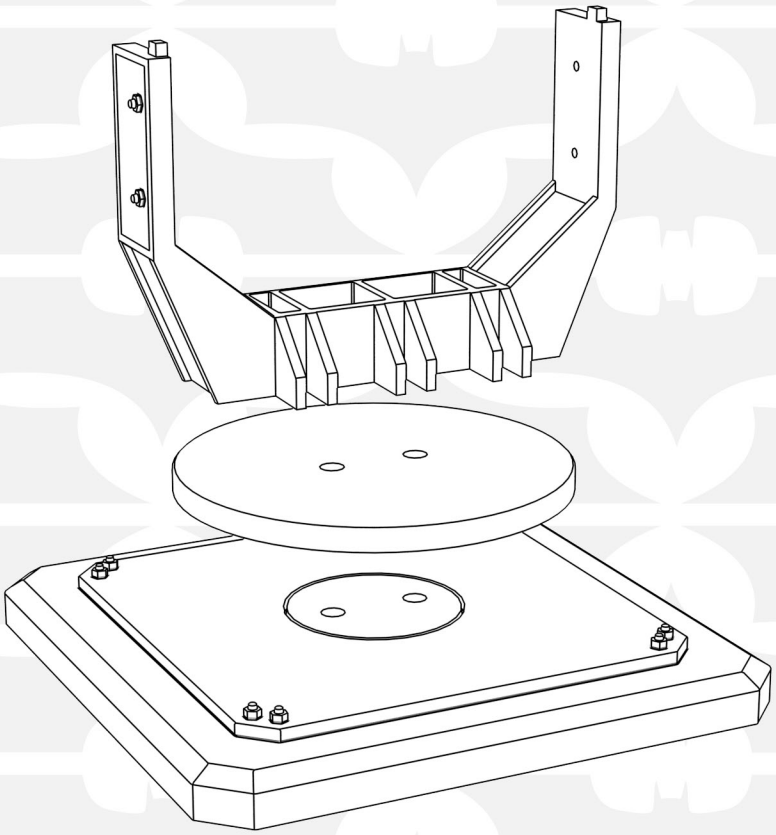


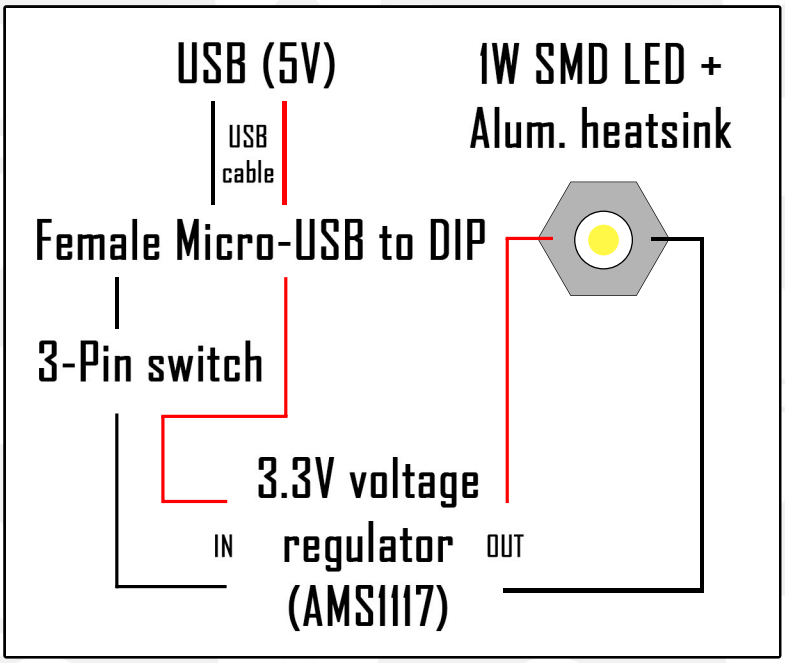
Take assembled parts **3** and **4** and together with disc **D**, join them together with the appropiate screws (M6 suggested).

Appropiate length of the screws is about 1 cm or 1".
Tight them until the main frame is able to rotate without being loose.

6

This basic scheme will guide you through the wiring.

⚠ This is my personal approach to wire the system and it can be unsafe. Follow this diagram at your own risk. If you don't have experience ask for help.



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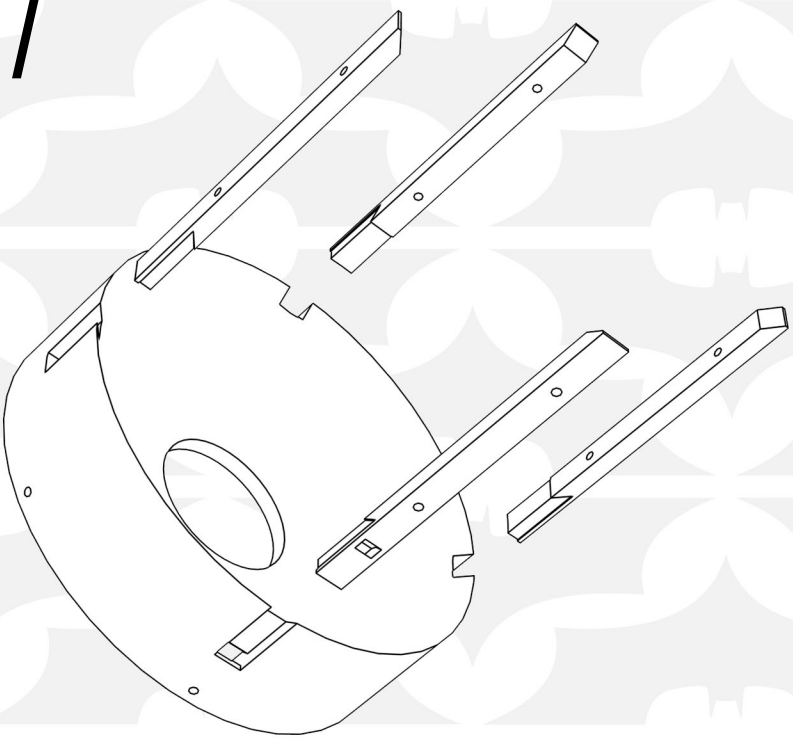
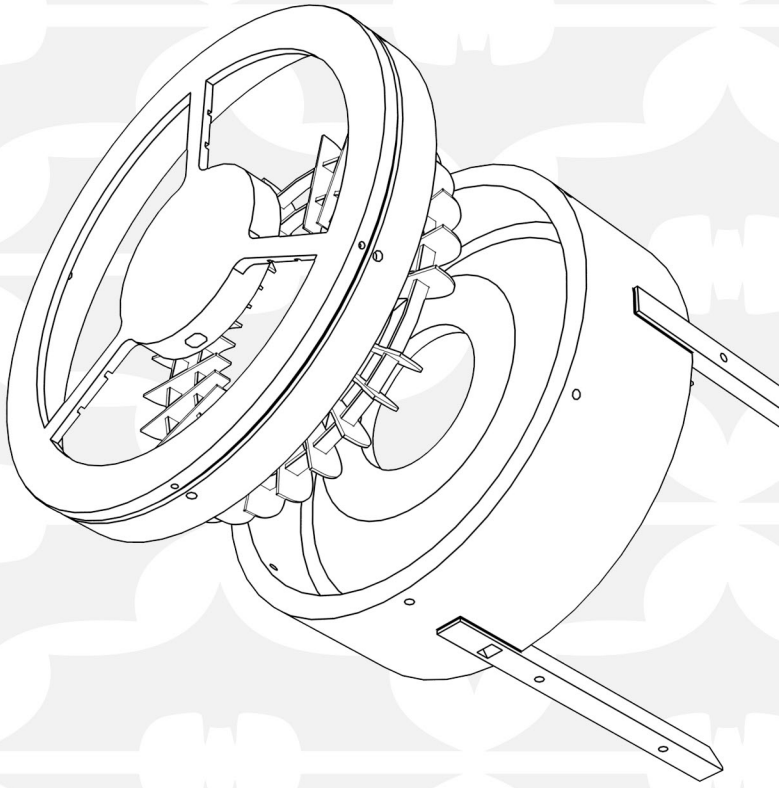


Beams **M** are partially inserted into reflector **Q**. **KL 1** should fit in the notches of the beams. Place **KL 1** in place at the same time the beams are being inserted in the notches.

M2, **M3** and **M4** are clones, while **M'** has a guide for the wiring. **M'** should fit in the notch with the wire guide in the reflector (**Q**) as well.

8

LED and heatsink are placed in the **LED** piece and pressed into **O**. The wires should exit through the small hole. Then, heat diffuser **P** is glued into position and both pieces assembled with the appropiate M2 screws into assembled section **7**, guiding the wires through the holes of the beam.



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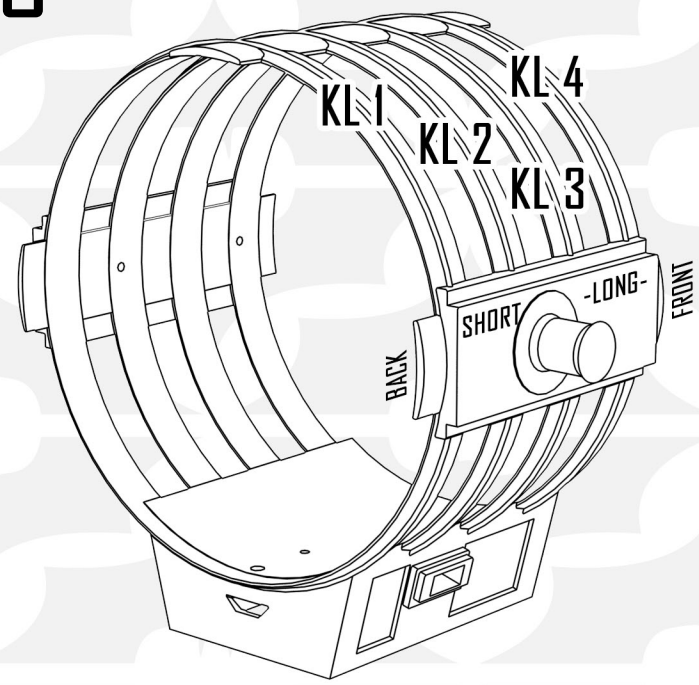
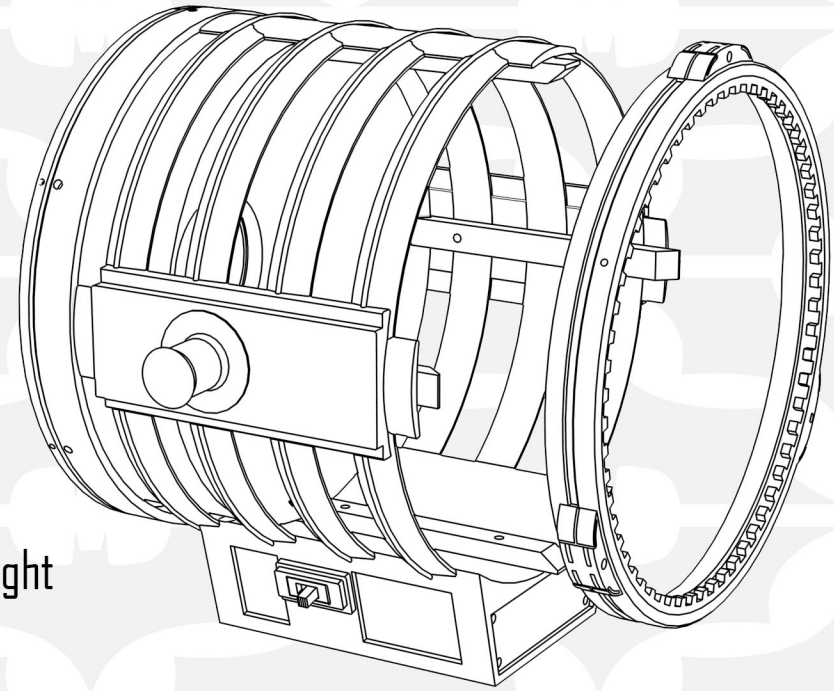


Identify the position of the **KL** rings by matching the order shown in the picture. Finish drilling the holes in **KL 2** and **KL 4** and use the notches in the beams to find the right position. Use M2 screws to help keeping them in place. Check the right position for **H1** and **H2**, **J** and **I** and finish inserting the screws to keep those pieces attached.



Guide the wires through the big hole in piece **I** and finish the wiring in the electrical box. Switch hole is hidden and needs to be cut to reveal it if desired. Keep it close for aesthetics if you prefer not to use the switch. Use the lid **N** to keep all tight inside. Finally, front ring **R** should fit tight in place.

If front ring doesn't hold by itself, use some small pieces of electrical tape at the end of the beams to reduce the tolerance.

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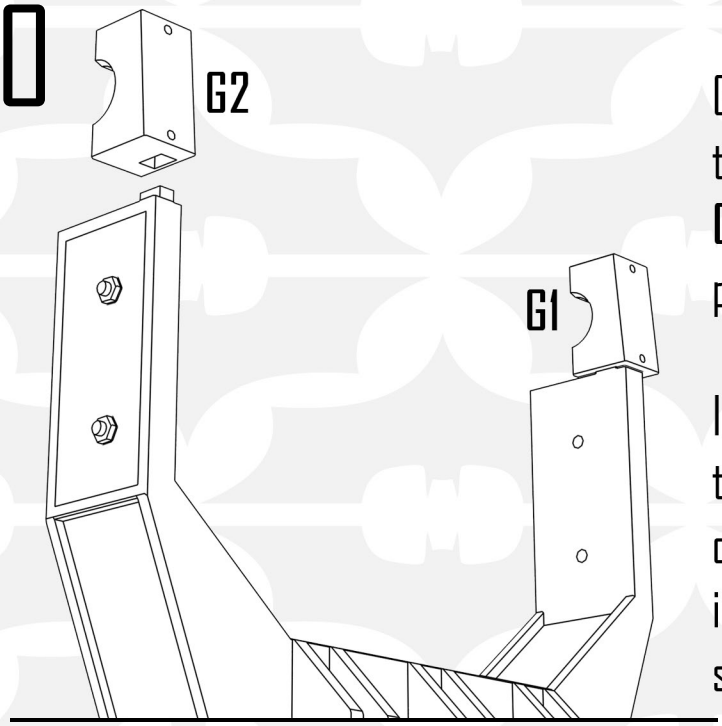
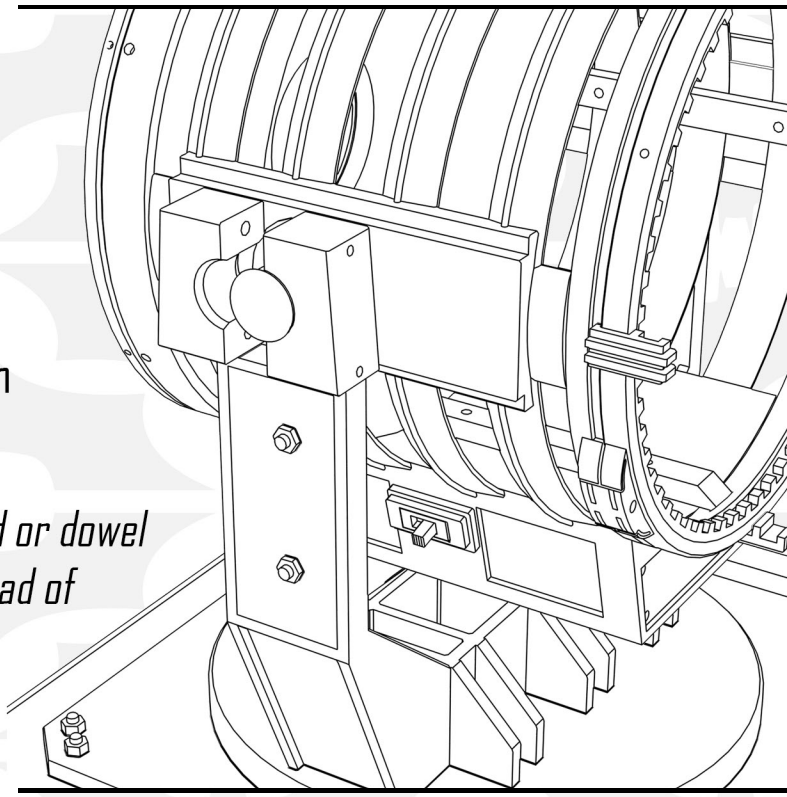
10



Glue **G1** and **G2** into assembly **5**. Note that they are all unique. **G3** pairs with **G2** and **G4** with **G1**. Ensure a good alignment of the pre-drilled holes on both sides.

In order for the main lamp to fit in between, these pieces should overhang on the outside of the main frame. The weight of the lamp is fairly equilibrated in the columns so an standard adhesive does the job.

11



Put the assembly **9** into the main frame (assembly **10**). Match pieces **G3** and **G4** into place and screw them with long M2 screws, allowing the lamp to pitch easily but to stay in position by itself.

Long M2 screws are difficult to find. Instead, a rod or dowel can be used to fit both pieces together and the head of the screws for decorative purposes on both ends.

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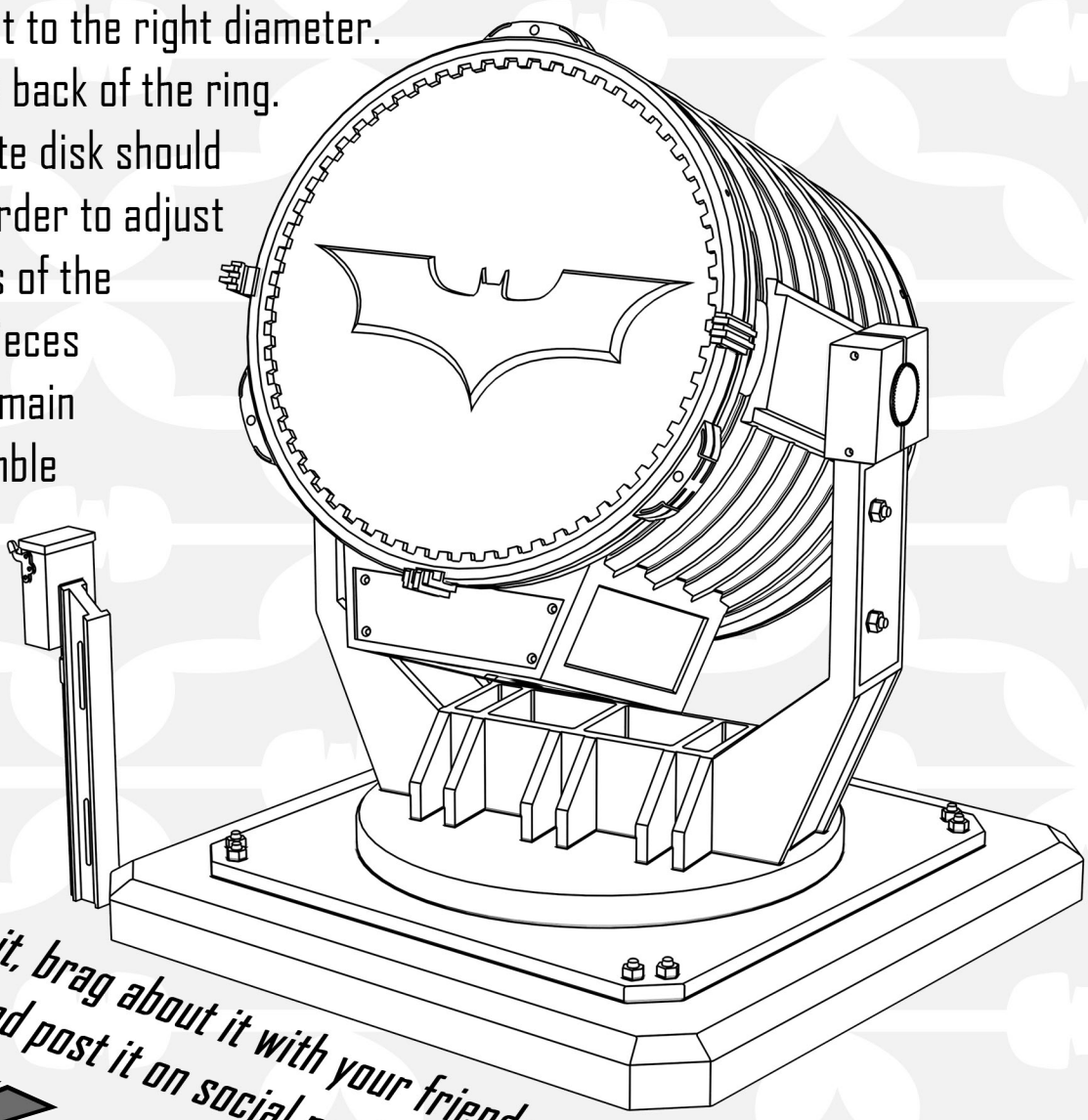
Finish the model by cutting 4 acetate rectangles to fit in the main lamp quadrants. If you sand the acetate pieces you can achieve a nice mate finish.
Cut a circle that fits in the front ring notch and glue **T** Batman logo in the center.
Cut the acetate disc with a diameter 2.5 mm bigger than the main opening. Personal printing settings can lead to different tolerances so start with that value and adjust it to the right diameter.
Insert it from the back of the ring. Ideally, the acetate disk should rotate freely in order to adjust the straighteness of the shadow. Glue **S** pieces according to the main design and assemble the fake power switch with pieces **U**, **V** and **W**.



Enjoy it, brag about it with your friends and post it on social media!

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