
LED Ring Lamp

Build Instructions



Adylinn Studio

v1

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Introduction

This is an easy build that results in a cool little LED Ring Lamp. This light can be placed in various locations to add some color and style. No specialized tools are required and a 3D printer is not required - you can utilize a print service such as [3DHubs.com](https://3dhubs.com) to obtain the 3D printed parts from a local printer.

What You Will Need

Materials:

- [3D Printed Ring](#)
- [3D Printed Base](#)
- [Primer](#)
- [White Spray Paint](#)
- [Clear Coat](#)
- [Walnut Wood Veneer](#)
- [Linseed Oil](#)
- [Glue](#)
- [Sanding Paper](#)
- [RGB LED Light Strip](#)

Tools:

- [Clothes Iron](#)
- [Orbital Sander](#) (optional)

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3D Printed Parts

If you are sourcing your 3D printed parts, I'd suggest a local printer on [3D Hubs](#) so you can pick up your printed pieces without having to risk shipping. Be sure to communicate the below settings when placing your order:

Ring and Base (decent surface quality to limit amount of sanding needed)

- Filament choice not really important
- 0.2mm layer height
- 15-20% infill
- Orientation - laying on side
- Support needed, brim recommended

[Order a 3D Print](#)

Finishing Ring and Base

1. Remove support material and brim
2. Sand all the printed parts to the desired smoothness. Start with 120 grit and move up to 320 grit for a nicely smooth part without visible print lines.
3. Wipe the sanded parts with a lightly damp cloth or paper towel.
4. Once the parts are dry, evenly apply primer.
5. Once the primer has dried, sand lightly. Wipe the sanded parts with a lightly damp cloth or paper towel.
6. Paint parts with desired color. For this build a matte white was used. Two coats is recommended.
7. After the paint has had enough time to dry, apply clear coat.

Wood Veneer

1. Wrap wood veneer around Ring to get an estimated length, then cut slightly longer than needed.
2. Before using Clothes Iron remove any water and allow clothes iron to dry.
3. Heat up a clothes iron on the cotton setting. (Warning - some residue from the process may get on heat plate, though this did not happen during my build)
4. Wrap wood veneer around Ring and do not allow it to get loose as you move around ring.

5. Use iron to melt adhesive, allowing it to stick to the 3D printed ring. The general speed to avoid scorching wood is 2 inches per second but it seems to be quite tolerant of the heat. Do this until all veneer is glued onto ring.
6. Once at end you can trim up the excess and finally adhere the last section of the veneer.
7. Apply a generous amount of linseed oil to veneer all the way around.
8. Let oil sit and penetrate wood for roughly 10-15 minutes.
9. Wipe any excess oil from veneer.

Assembly

1. Glue the 3D printed base to the Ring and make sure the holes line up.
2. Insert the LED strip into the ring to get a general estimate of the length needed. First, test the length and connect the connector to confirm before cutting. Cut at the closest “cut point” on the strip (this is indicated on the strip itself). ***Be sure to cut slightly longer than the inner diameter as part of the strip will be inside the base.
3. Feed the LED strip into the base and connect to the power connector.
4. Remove backing of LED strip to expose the adhesive backing. Do this as you progress.
5. Adhere LED strip to the inside of the Ring.
6. Route the wire out the back of the base.
7. Connect the power connector to the wall and enjoy your new LED Ring Lamp!

Thanks for taking the time to explore the project, I hope you try it and if you do I'd love to hear your feedback and see pictures of your build! Reach out on social media or leave a comment. If you have suggestions about future builds or improvements to the way the builds are presented please let me know.