



The purpose of this little guide is to help you assemble the pieces of "**Fantasy LEDS Vol.1**" and give you some tips for the best results. Despite the assembly is more or less intuitive I have been asked to make this guide in case you have doubts or feel stuck.

1. What would I need?

The only mandatory external component are the **led balls**. But to make it easier to hold them I recommend a bit of **blue tack** or some sticky putty or even plasticine. On the other hand, if you want to reposition the pieces, you could use a small thin and **resistant stick** to remove the ball in case we have to change or reposition it. Resin or transparent filament is also recommended for some pieces to get the best results.



The purpose of blue tack is to keep the ball and other pieces **attached** and **avoid wobbling**. After many test I noticed that due to the different resin shrinkages the gaps for the ball can be smaller than pretended, that's is the reason I made the gaps a little **wider** to compensate the shrinkage. Led balls are not perfect either, you can find small imperfections of one millimeters in them. That's why I recommend the **blue tack** to avoid the ball from moving inside. In some pieces you will probably need the blue tack to keep them joined but at the same time allow you to disassemble them. Gluing them is not recommended (unless I mention it on this guide) because if the battery dies you won't be able to replace the led ball. Maybe you'll need it or maybe you won't. It will depend on the situation of each one or your preference.

2. Where Can I find the LED balls?

You can find those **LEDs** easily online on **Amazon**, **eBay** or other online providers (**Alibaba/ Aliexpress**) with the name of "**Led ball balloon**". I have also found them in general stores, but that depends on your country I guess.

They are available in a variety of colors. Note that to fit correctly in the gaps they must **measure** no more than **14 millimeters** ($\approx 0,55$ inches) in horizontal diameter and **16mm vertically** ($\approx 0,62$ inches) So a 14x13x13 (mm) or 0.6 x 0.5 x 0.5 (inches) for example would be ok. I think the size of this kind of leds is pretty standard in any case, but take a look because if they don't fit it will be a disappointment.

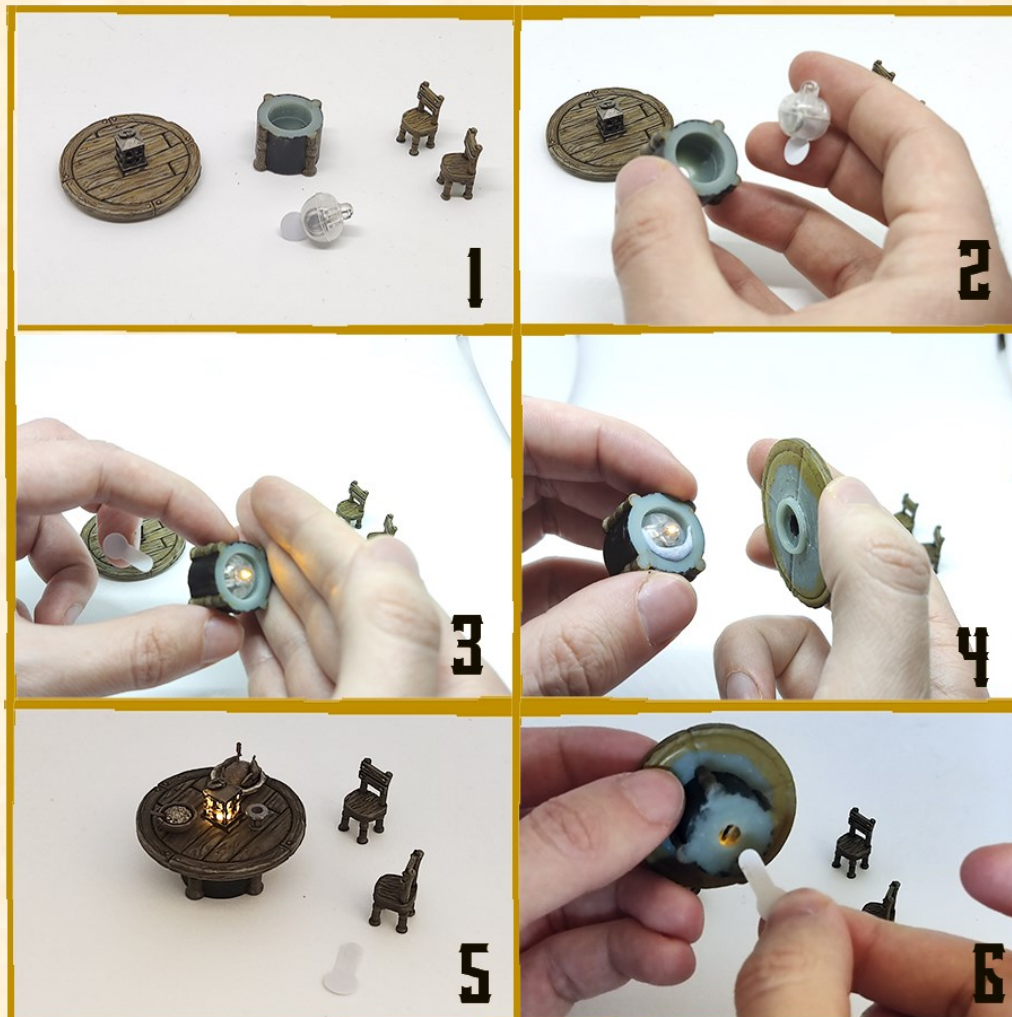
3. Let's get to the point

We have **different systems** for placing the LEDS many of them are the same or very similar, so I'm showing you step by step images for the different kind of assembly and some other advices to get the best results.

General Tips:

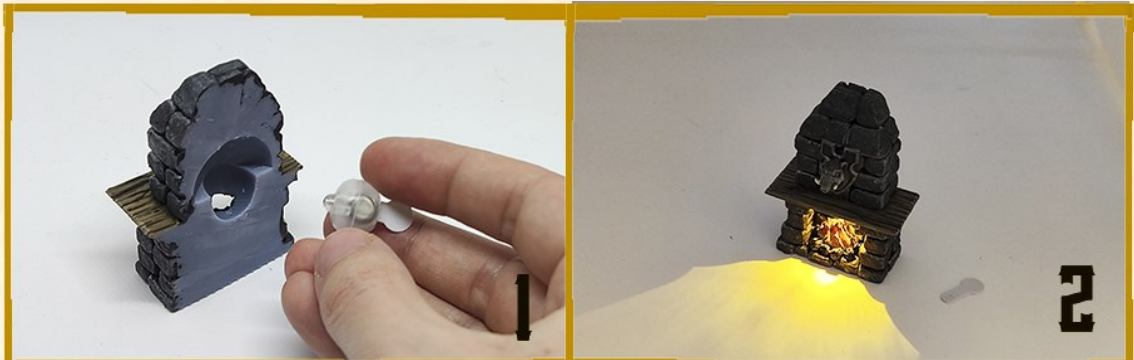
- 1) Flames, crystals, fire, energy, candles, etc. Always look better printed in **transparent** resin.
- 2) **Blue tack** is not necessary in almost any miniature but it is recommended for your comfort and keep things in place without glue and avoid the movement of balls inside.
- 3) You can use **alcohol inks** to tint clear resin instead of using a colored transparent resin.

- Round table.



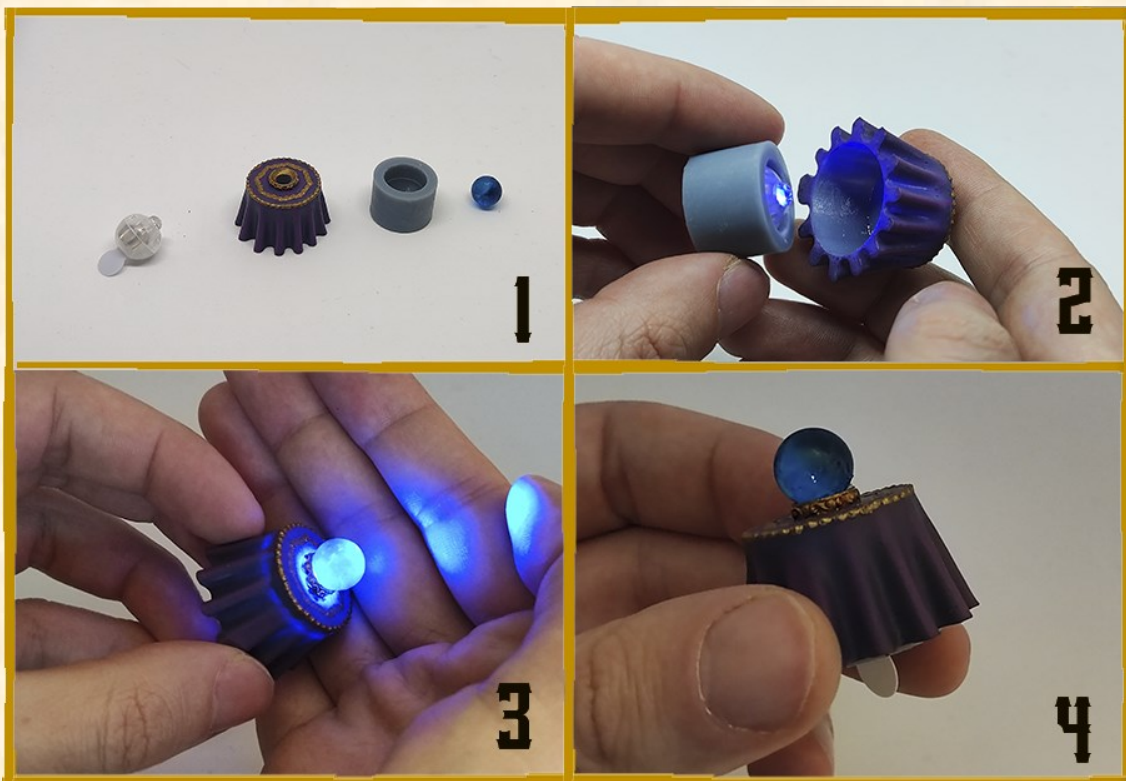
1. With all elements in dispose.
2. Just remove the tab and place the LED ball inside the "round_table_bottom" piece, with the diode facing up.
3. As you can see its already turned ON.
4. If you need it, place a little bit of blue tack like in the image to avoid wobbling and keep the table top steady.
5. As easy as that! You have your LED prop ready to make your table shine!
6. When you need yo turn the light off just place back the tab inside the ball through the designated hole. This way you won't need to disassemble ir every time.

- **Fireplace.**



1. Place the LED ball in the designated spot on the back, keep it steady with blue tack if you consider it.
2. Remove the tab to turn the LED on. Piece of cake!

- **Fortune table:**



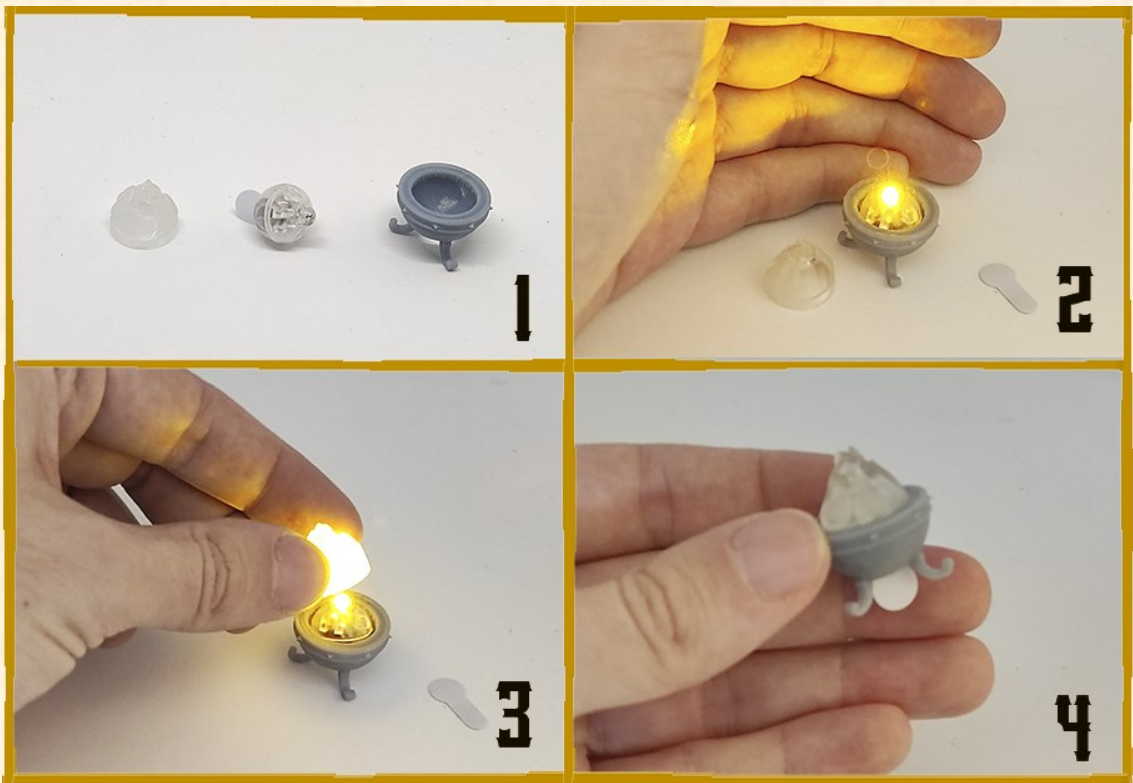
1. With all elements in dispose (Crystall ball in transparent resin for best result).

2. Remove the tab and place the LED ball inside the “BASE_fortune_table” piece, with the diode facing up, then, get them inside the table top as seen.
3. With a little help of blue tack put the crystal ball on place taking care of not blocking the light path, making a thin ring of blue tack is the key. If you prefer you can permanent glue this part in the case you don't plan to remove the crystal ball, because it won't affect the disassemble.
4. Ready! You can make different effects for your games changing the LED color to red, green, etc. When you need yo turn the light off just place back the tab inside the ball through the designated hole in the bottom. This way you won't need to disassemble ir every time.

- **Metal furnace:** Same system as the fireplace.



- **Brazier:**



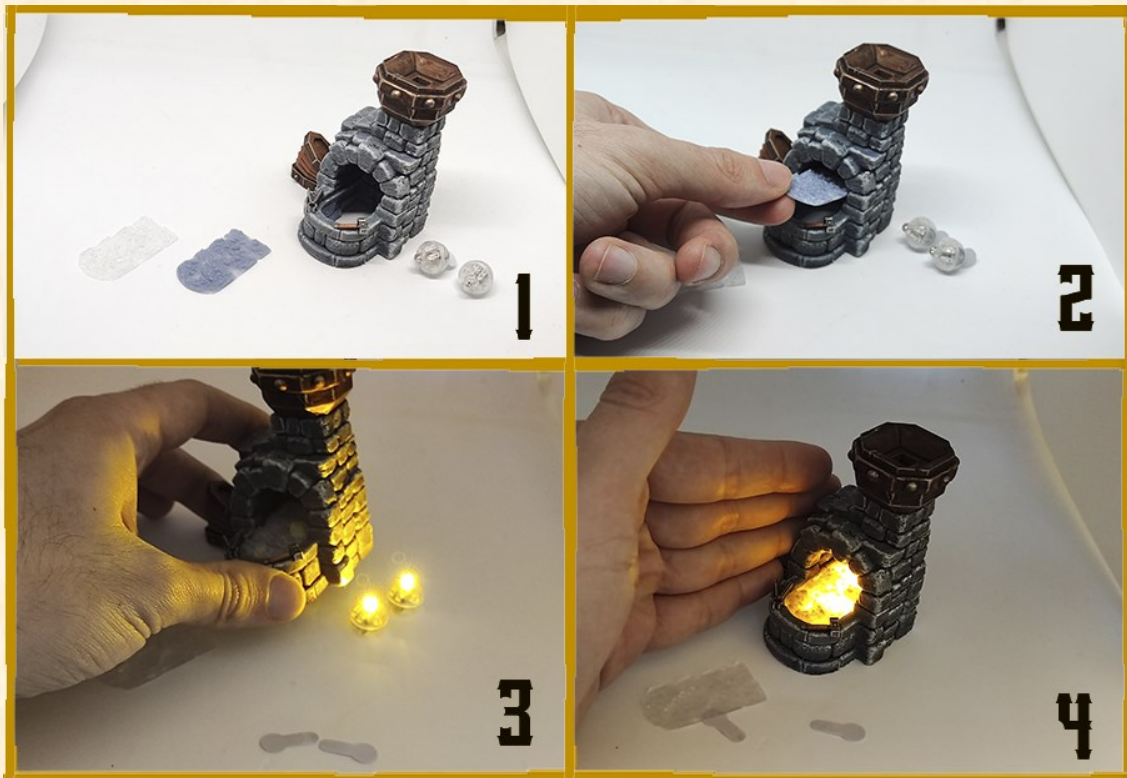
1. With all elements on dispose. (The flame is recommended to be printed in transparent resin).
2. Place the led ball inside the brazier piece.
3. Place the flame over the LED. Optionally put some tack if you need it.
4. When you need to turn it off insert the tab back in the LED ball through the bottom hole.

- **Lamp post:**



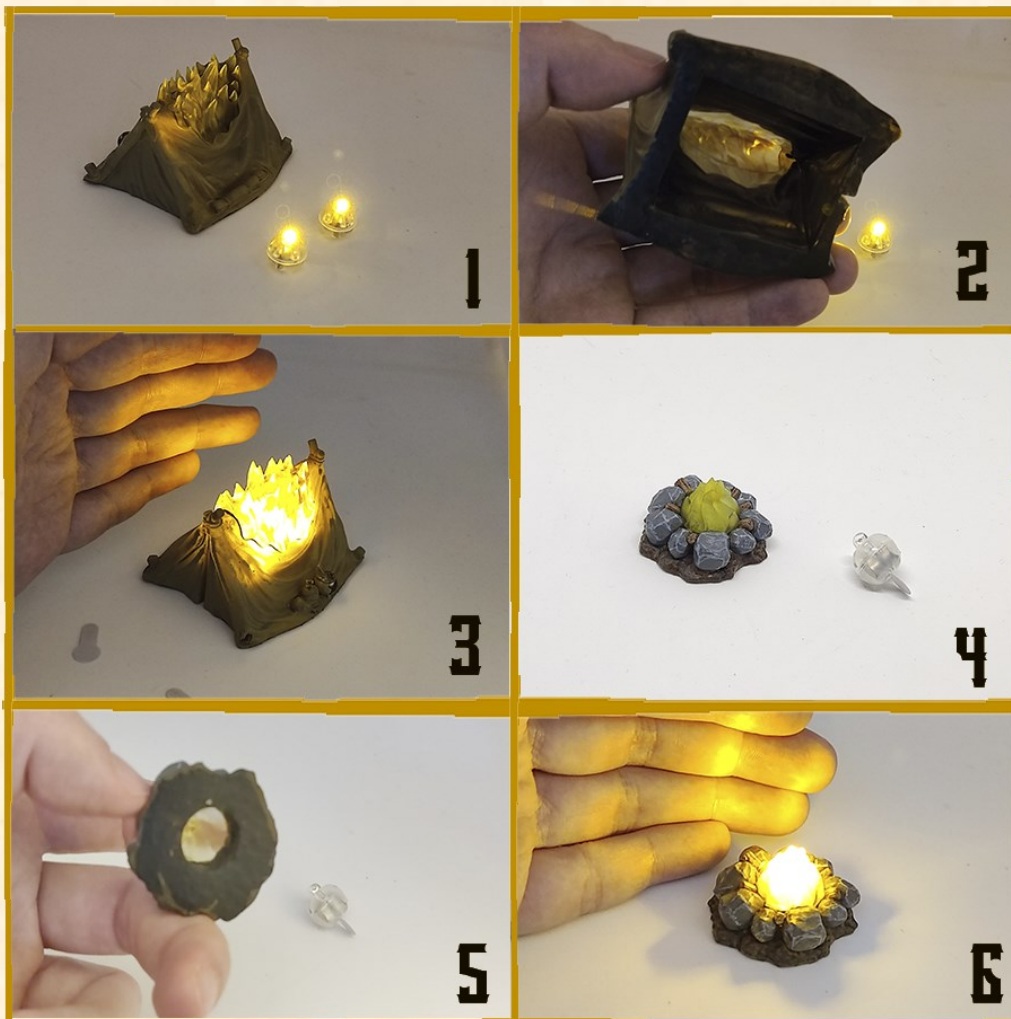
1. Similar to brazier just turn on and put the led ball inside the top of the post.
2. Place the lamp on the top of the post. Note that it fits better in a specific position, so keep this in mind.

- **Forge:**



1. With all elements in dispose. I prefer the embers on gray resin, it's a thin piece and creates a diffuse effect of light achieving a more realistic result in my opinion. But you can print it transparent if you prefer.
2. Put the embers carefully inside the forge. In this case you can glue the embers permanently in place if you want.
3. Turn on two led balls and just place the forge over them.
4. Your blacksmith will be happy!

- **Tent and campfire:** Those are similar to the forge but they come in one piece.

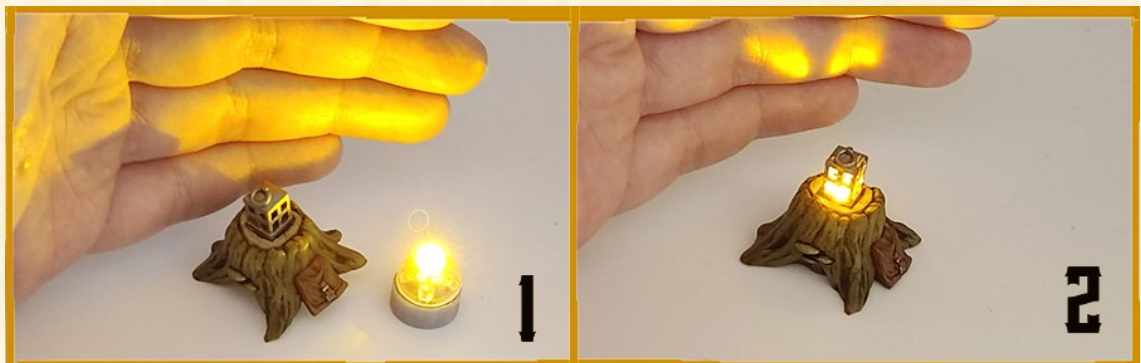


1. For the best result I recommend you to print it in transparent.
2. Then, paint a thick coat of black paint under the piece to block undesired light, do various coats if needed. Be careful not to cover the flames underneath.
3. When you paint the tent avoid covering the flames to allow the light go through them. Finally place the tent over the turned on led ball on the table.

4. 5. 6. The exact same system as the tent. Remember to avoid blocking the light with paint on top and under the flame.

Now that you're familiar with it, I'm going to be brief. I will focus on the other different systems

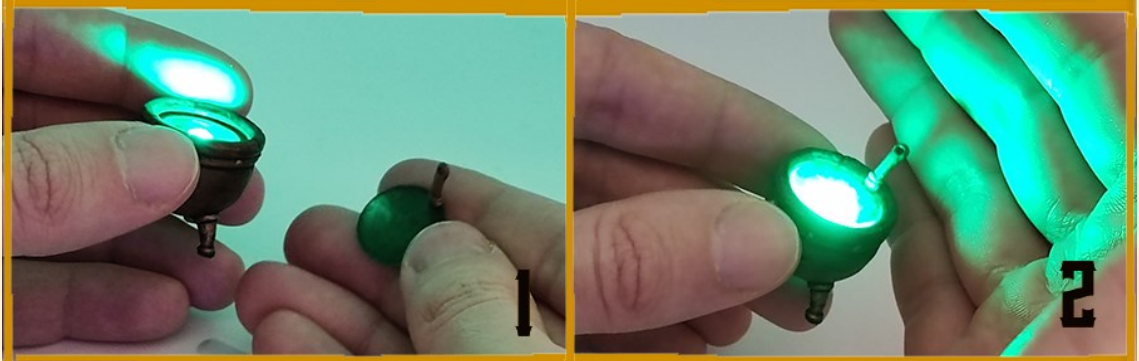
- **Lantern on stump:** Similar system as the tables. Just place the led ball over the BASE and insert them inside the stump. Reinsert tab to turn off.



- **Lantern on box and barrel:** Similar system as the tables.
 1. Place turned on LED ball facing up inside the crate and place the top over it.
 2. Same as the lantern on stump.



- **Cauldron:** Same system as the brazier, print the top transparent and paint only the spoon.



- **Column with torch:**



1. Print the flame in transparent and place it on the torch hole. Glue it if you prefer.
2. Place led ball on the back with the diode facing the flame, use blue tack to keep in place if you need and remove the tab to turn on.

- **Minecart:**

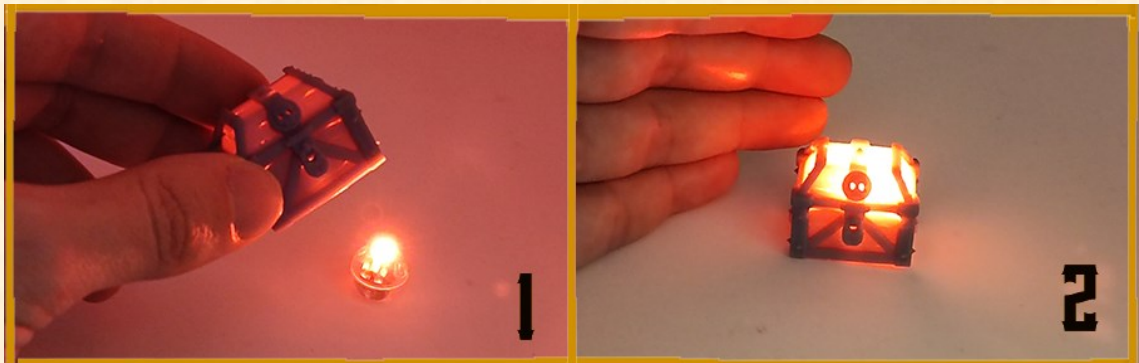


1. Place the turne don led ball inside the minecart facing forward. Use a bit of blue tack to keep in place if needed.
2. Cover it with the load.

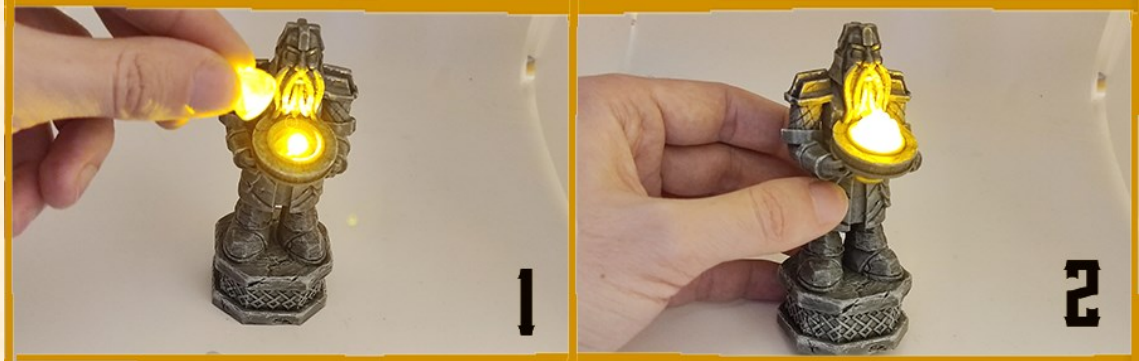
- **Crystal ores:** Same system as the fireplace, printed in tranparent, and avoid painting the crystal pieces above and underneath.



- **Igneous chest.** Same system as the forge but in a single piece.



- **Dwarven statue:** Same system as the brazier. Remember to print flame transparent for better results.



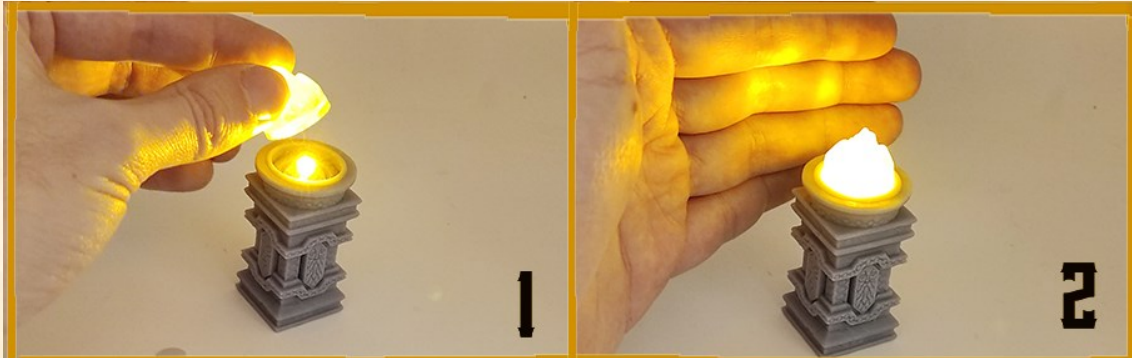
Stretch goals:

- **Square table:** Same system as the other tables.
- **Packhorse with lantern:**



1. Place the turned on led ball inside the saddle facing the lantern on the side.
2. Put the saddle in place.

- **Dwarven brazier column:** Same system as brazier. Flame in transparent as usual.

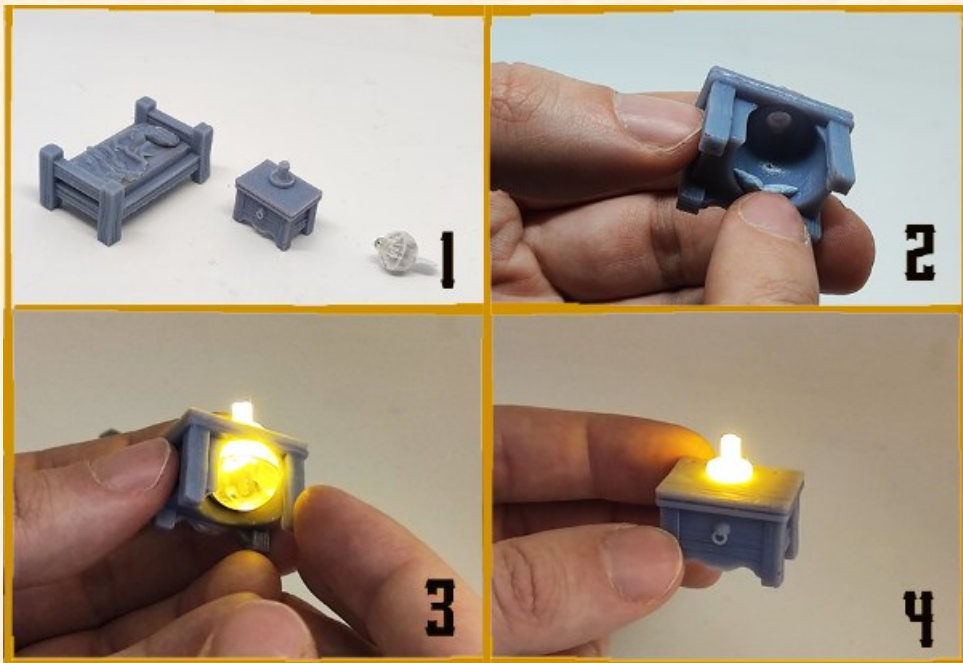


- **Grill:**



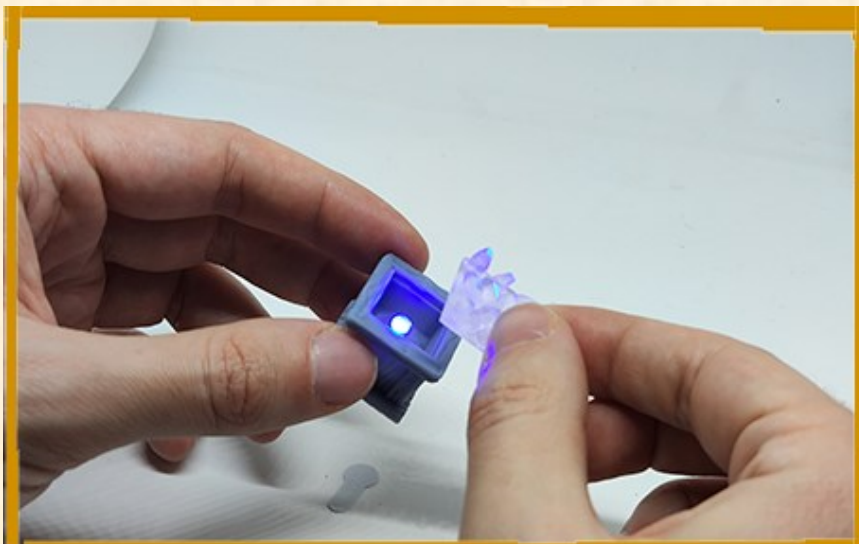
1. Place the embers over the stone grill.
2. Turn the Led ball on over the table and finally place your desired food on the supports.

- **Nightstand:**

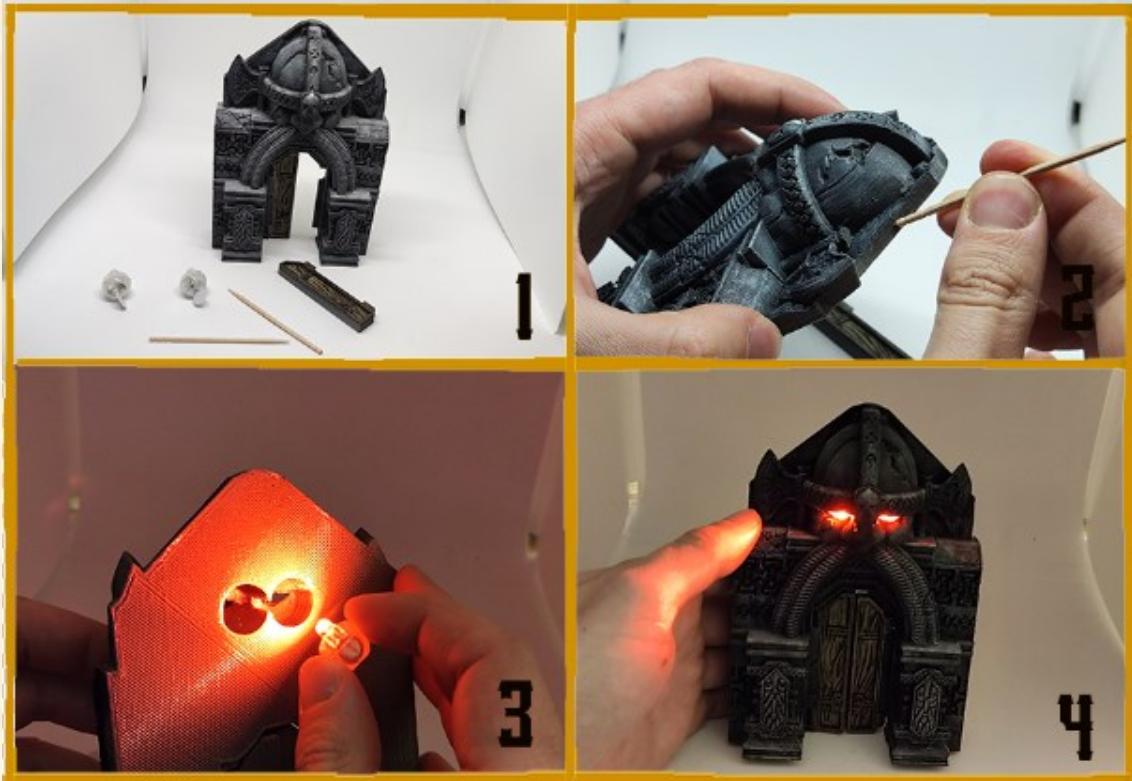


1. In this case you will obligatory need a piece of blue tack or something similar.
2. Put the tack as you can see here to keep the ball in place.
3. Turn the led on and place in the hole facing up.
4. When you paint it use a very thin coat over the candle to avoid blocking the light or print it transparent/white if you prefer.

- **Mine crystals crate:** Same system as brazier or crate, crystals on clear resin.

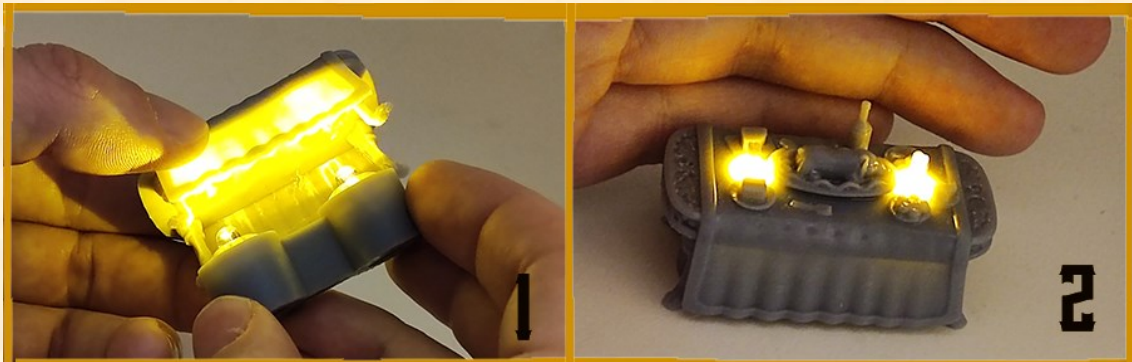


- Dwarven gate:

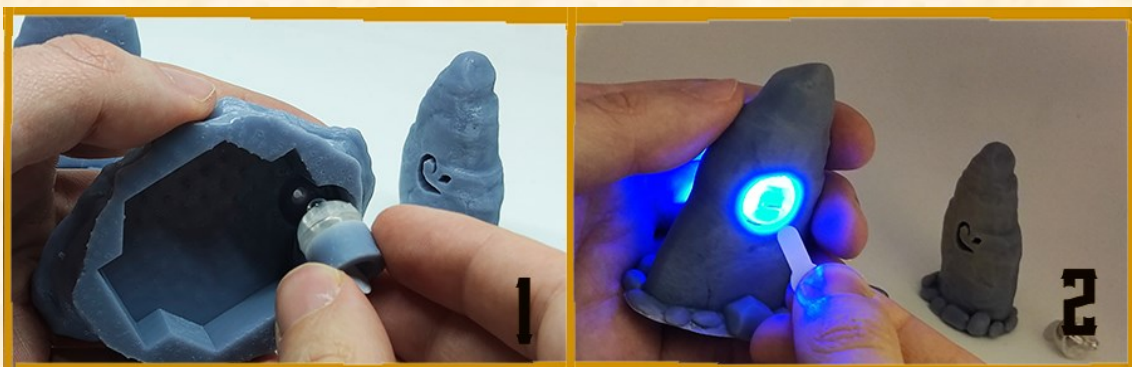


1. This time you will need two led balls and two thin sticks. Toothpicks for example, to use them as the doors hinge axis.
2. Insert the stick inside through the holes as this, place and align them with the ones in the doors. This way doors will be openable.
3. Turn on the leds and push them to the end of the eyes. Use a stick if you can't use your finger to the end.
4. Badass door ready!

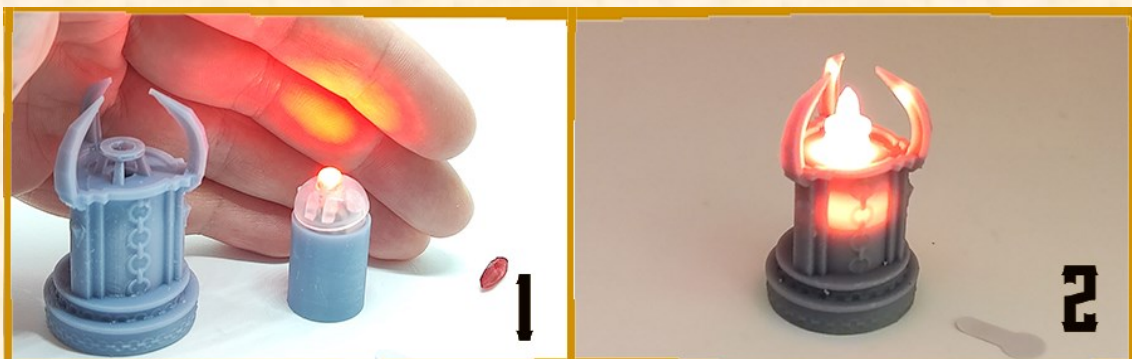
- **Feast table:** This uses the same system as the other tables. Take into account that the BASE piece face one side better than other, is not symmetrical.



- **Runic and Sacrifice Stones:** Same system as fireplace and same system as tables respectively.



- **Magic crystal:** Same system as fortune table. Crystal better in transparent.

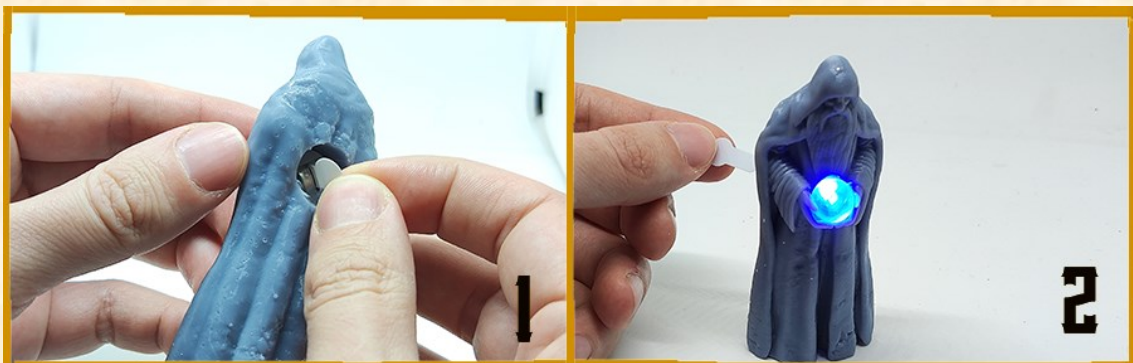


- **Portal**

1. Insert the energy inside the arch from above, intransparent better as usual.
2. Place a led ball on the table facing up and put the portal over it, place the other led ball in the arch gap facing down.



- **Wizard Statue:** Same system as colum with torch. Orb better in transparent.



- **Witch burning at stake:** Same system as the tent. Full transparent. Remember to avoid painting flames outside and inside. (I still did not paint it in this pic)



- **Natural Fountain:**



1. Print the water in transparent.
2. Place the turned on led on the table. And put the water over it, then the rocks parts over it, making match with the water. You can use other colors for poisoned/toxic water, bloody fountain, etc.

- **Hanging lamp post:**

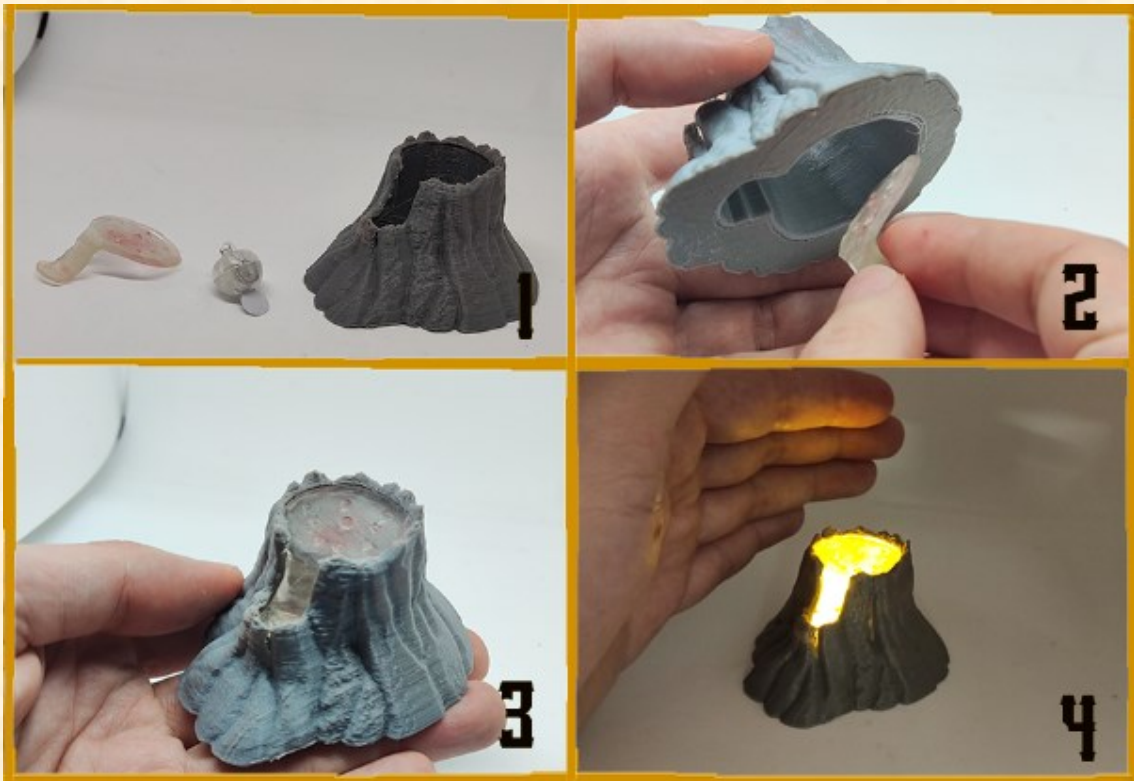


1. Remember that flames always should be printed on transparent for the best results.
2. Place the led ball inside the brazier bottom. Put a thin ring of blue tack on the upper border as in the image.
3. Time for placing the flame.
4. And now the resto of the lamp, make sure it match the blue tack and the brazier piece. This way it'll stick together.
5. Now hang the lamp in the pole hook.
6. Remove tab to turn on as usual.

- **Funeral pyre:** Same system as the tent or witch stake. Full transparent. Remember to avoid painting flames outside and inside. (I still did not paint it in this pic)



- **Lava pools:**



1. Print the lava piece transparent.
2. Place it on place, inside the small vulcano.

3. Like this.
4. Place it over a turned on led over the table.

- **Emerging spirit:**



1. Print the spectre in transparent.
2. Turn on the led over the table.
3. Place the tomb over it matching the hole.
4. Place the spirit on the coffin crack, it will stand up.

- Dragon



1. With all printed pieces (You will need a big printer, this guy is huge!)
2. Place the LED ball inside the gap on his mouth facing the tongue. Put the top of the head over it, use blu tack if necessary.
3. Glue the wings on place. Now you have my biggest mini to date in your hands!

- You can find all uncropped pictures here:

<https://drive.google.com/drive/folders/1FBsQfdh4PFCBrBECxxilVtpgg7t5iSoT?usp=sharing>