

Felt Snowman

Make a Felt Snowman that lights up! It can be a fun holiday wearable, an ornament for a tree, or just a cool yule decoration.

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INTRODUCTION

Make a Felt Snowman that lights up! It can be a fun holiday wearable, an ornament for a tree, or just a cool yule decoration.

We made ours using stiff felt, but you can also make a paper version using construction paper or regular paper that you color yourself!

You can make this project (and many more) with our Wearables Circuits Kit or Paper Circuits Kit.

TOOLS:	DARTS:
 Scissors (1) 	 Wearable Circuits Kit (1)
 Tacky Glue (1) 	• Felt (1)
 Safety Pin (1) 	

Step 1 — Gather Your Materials



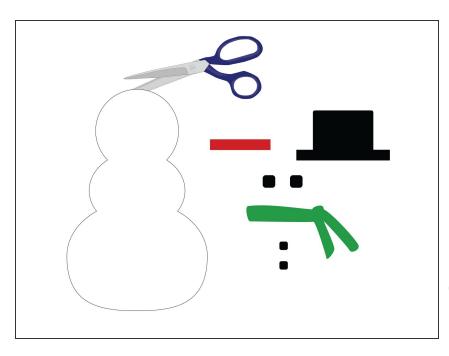
- For this project we're going to use stiff felt, one Jumbo 10mm LED, one CR2032 battery, and some Maker Tape. (You can choose any color LED for this project.)
- You'll also need a pair of scissors and some glue. (We'll discuss glue in the next step!)
- Note: You can opt to make this project using paper instead of felt. Either use colorful construction paper or just color the paper pieces with colored pencils or crayons.

Step 2 — Choose an Adhesive

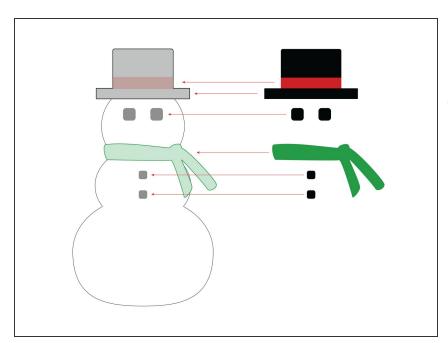


- There are a few options for assembling the project, so let's talk about glue.
 - White School Glue is a classic, and everyone seems to have a bottle. It's not great for felt though.
 - Hot Glue (and a hot glue gun) works great for adhering felt, but if you're working with kids there's safety to keep in mind. Hot glue burns are no fun!
 - **Spray Glue** is also great for adhering felt, but it's messy and without the proper ventilation we would not recommend it.
 - Glue Sticks are pretty common, and can work for felt. It's not the best, but it'll do in a pinch, and it's pretty *kid-friendly*.
 - Tacky Glue is probably the best option for gluing felt. It's not as common as some of the other choices but we recommend using it if you can.

Step 3 — Print Templates and Cut the Pieces



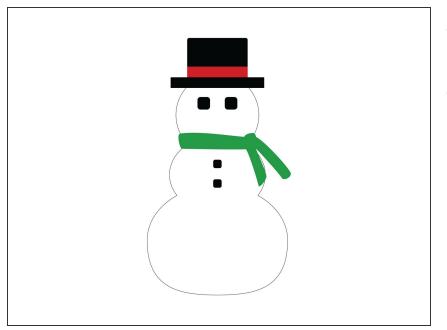
- Print the PDF template pages and then use them to cut out the felt pieces for your project.
- If you get a pack of stiff felt you should have a variety of colors to choose from. While snow people are usually white (like snow) you can always choose your favorite colors instead!
- (i) If you have access to a laser cutter it's an awesome way to cut felt! If you wanted to pre-cut a whole bunch of felt for a class or workshop a laser cutter is a great way to do it.



Step 4 — Assemble Your Snowman

- Glue all of the felt pieces as shown to assemble your Snowman.
- Each piece of felt attaches to the snowman body except for the red hat band we attached to the black hat.

Step 5 — Admire Your Snowman



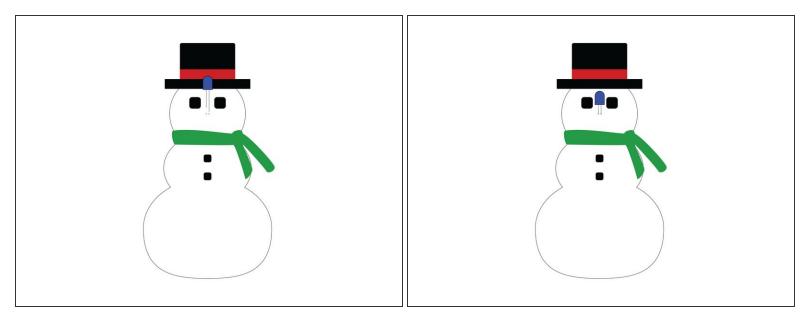
- While the glue is drying you can admire your Snowman!
- Next we'll start building our circuit.

Step 6 — Poke Holes for LED Legs



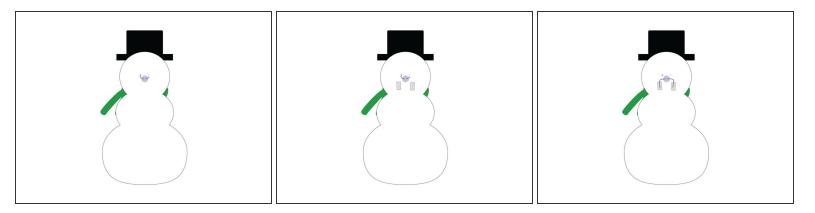
- Use a safety pin or a push pin to poke two holes through the felt for the LED legs to go through.
- (i) Use the LED legs as a guide to determine the spacing of the holes.

Step 7 — Add the LED



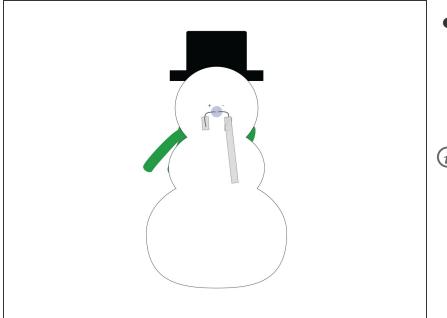
- Add the LED by pushing the legs through the holes.
- Note! Make sure the longer (positive) leg is on the right side when you put the legs through the holes.
- With the longer (positive) leg on the right side you'll need to remember that when we flip over the tree then the positive leg will be on the left side.

Step 8 — Add Maker Tape Pads & Bend LED Legs



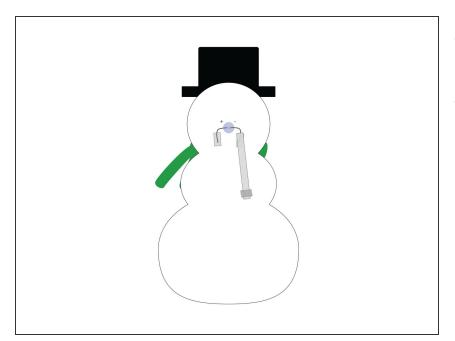
- Before you bend the LED legs down add two small "pads" of Maker Tape so that when you bend the legs down they make contact with the tape.
- Once you have the pads in place bend the LED legs so they touch the pads. We'll stick more Maker Tape on top of the legs to create a "sandwich" of conductive tape.

Step 9 — Add the Negative Side Maker Tape



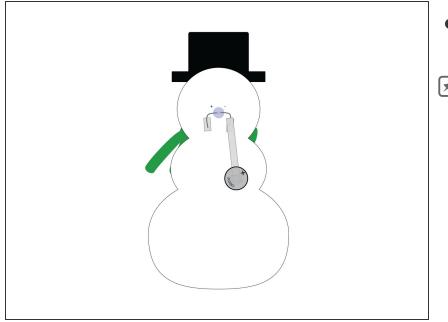
- Add the negative piece of Maker Tape to the LED leg on the right side. (This will connect the negative leg to the negative side of the battery.)
- (i) If you need to use more than one piece of Maker Tape to connect things that's fine. You can overlap Maker Tape and it will still work because it's conductive on both sides and all the way through.

Step 10 — Add the Tape Loop



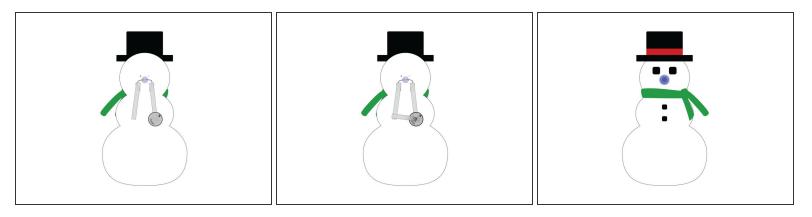
- Using Maker Tape, create a small tape loop.
- Stick the tape loop down to the end of the negative piece of tape.

Step 11 — Add the Battery



- Stick the battery down to the tape loop added in the previous step.
- Make sure you stick the *negative* side of the battery down to the tape loop.

Step 12 — Add Positive Side Maker Tape

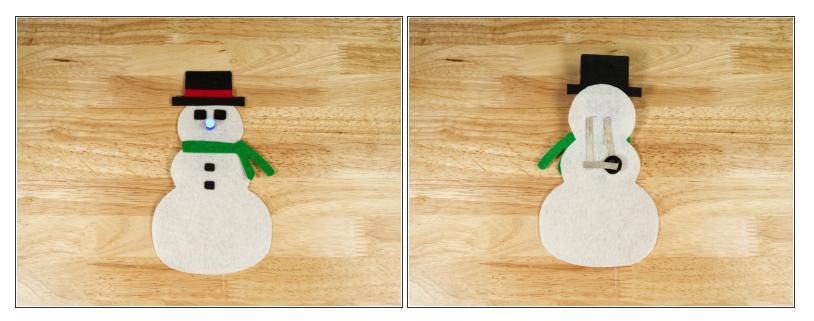


- Add a piece of Maker Tape to the positive LED leg long enough to line up with the battery.
- Add the final piece of Maker Tape to connect the battery.
- Stick the final piece of Maker Tape directly to the top of the battery.
- Your circuit is complete!

 \bigwedge If your LED did not light up there are a few things you can try.

- Check that all of your tape is pressed down securely. If there is a piece not making contact that may prevent your circuit from working.
- Try flipping over the battery. If your LED is reversed you can fix your circuit by flipping the battery upside down to match the polarity of the LED.
- If you want to turn off your circuit you can just peel back the piece of tape touching the top of the battery. Once you "open" the circuit the LED will turn off!

Step 13 — Enjoy!



- Enjoy your Felt Snowman!
- You can easily safety pin your Snowman to your clothing, or hang it on a Christmas tree as an ornament.
- What other ways can you decorate with your new Felt Snowman?