Safety Instructions

Recomendation

According with our experience we recommend to decorate with the LED just one slipper (this will depend on your patience to sew by hand).

What will we learn today?

- We will remember how a LED and it`s polarity are working.
- We will discover a new type of LED: The RGB
- We will meet a new material: The velostat
- We will sew a laser cut textile character

E-Slippers

Create your own light slippers

Textiles + Laser Cutting + Electronics

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Materials & Tools

1. LED (common cathode, 3 mm)
2. 3v battery 2032
3. Conductive thread
4. Felt size mould of the slippers
5. Needle
6. Decoration pieces of felt
7. Felt battery holder
8. Wool
9. Cotton thread

VELOSTAT: It is a material which the electrical resistance varies when it is pushed on.

Slippers

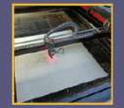
Step by step instructions

Process overview

- Step 1: Cutting slippers
- Step 2: Joining parts 1
- Step 3: Making the electrical circuit 2, 3, 4 and 5
- Step 4: Making the eletrical circuit 6, 7, 8, 9, 10, 11 and 12
- Step 5: Connecting the battery
- Step 6: Sew the slippers

Step 1: Cutting slippers

- Cut the slippers template in the desired size on the laser cutter.



Step 2: Joining parts 1

- Position the different parts. Decide (with a small mark) which will be the left and right foot.

- Sew the heels together with the chosen wool.

1. Choose the applications you want to put on the slippers.

2. Decide where to place the battery holder, the LEDs and the decorations.

Step 3: Making the electrical circuits 2, 3, 4 and 5

- Circuit 2: roll up the legs of the led. The side - is cut
- Circuit 3: sew the (-) leg of the led with conductive thread.

- Circuit 4: sew to the place where you want to place the battery (you must sew inside out so you don't see the stitches).

- Circuit 5, take a small stitch with the thread and finish.

Step 4: Making the electrical circuits 6, 7, 8, 9, 10, 11 and 12

- Circuit 6: sew the leg (+) of the led, with conductive thread.

- Circuit 7: sew the way to the battery, attention to keep the paths separate up to where you want to put the battery but ending on the inside of the battery holder.

- Circuit 8: cross the line to the right side.

- Circuit 9: on the inside of the battery holder make a small stitch with the thread and finish.

- Circuit 10: testing

- Circuit 11: sew the battery holder in place.

- Circuit 12: sew the chosen applications

Step 5: Connecting the battery

- Connect the battery with the plus (+) symbol face up and verify if everything is working

Step 6: Sew the slippers

- Connect the battery with the plus (+) symbol face up and verify if everything is working

Final

Congratulations you have made your first shoes! :)