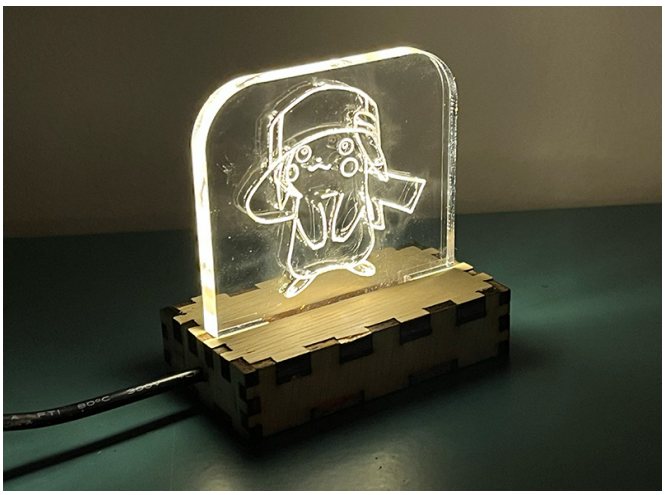
Light up sign



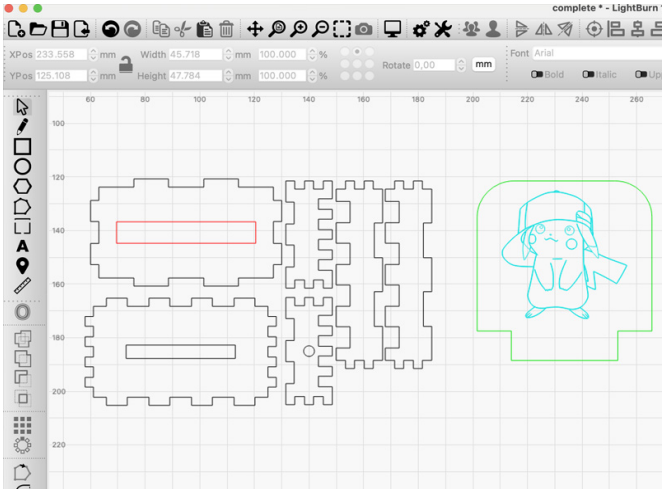
duration: 30 - 60 minutes
age: from 7 years

Make an acrylic sign that lights up.

undefined

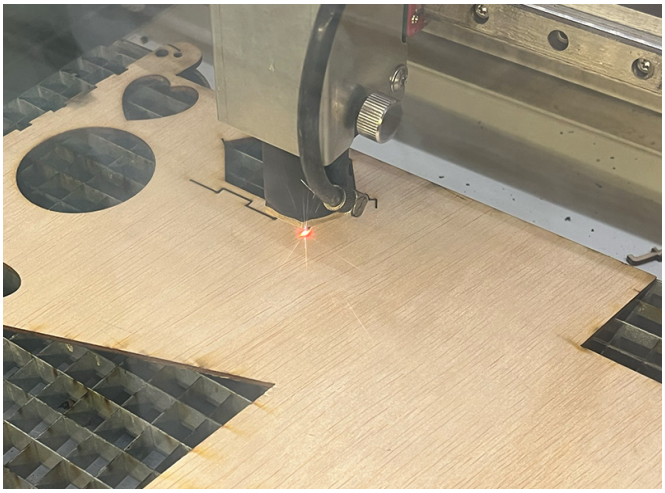
tools
- ☐ Laser cutter
- ☐ Soldering iron
- ☐ cotton-tips or small paint brush
- ☐ Computer with laser cut software installed (Lightburn in my case)
- ☐ Hot glue gun

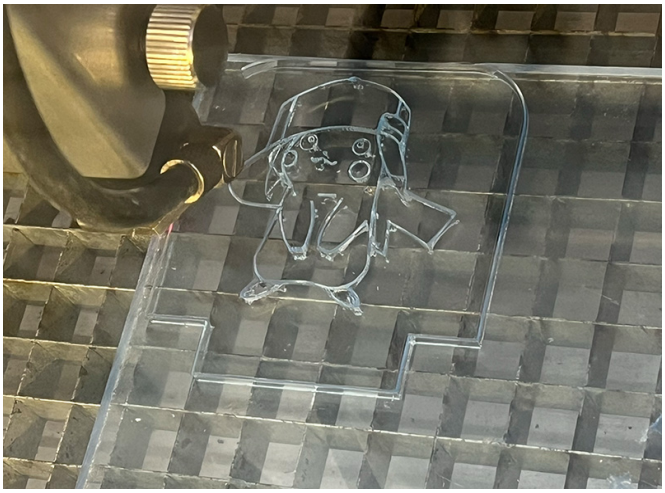
materials
- ☐ Wood glue
- ☐ Solder
- ☐ LED strip
- ☐ USB cable
- ☐ 3mm plywood
- ☐ 5mm acrylic sheet



1 Prepare the design

- Find or create a design you like. A high quality black and white image with not too many details works best.
- Open the attached template in Lightburn.
- Drag your own design into the template.
- Trace your design
- Scale and place your design into the template.

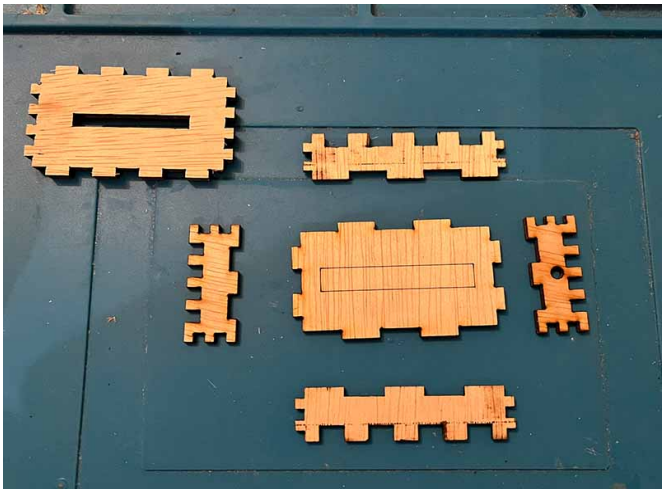


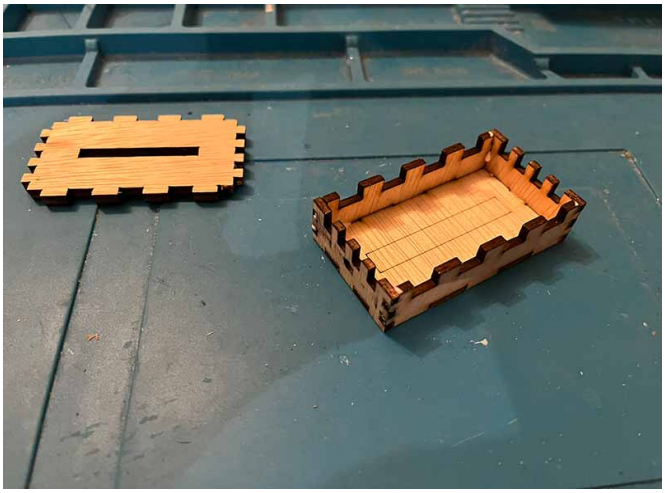


2 Cut out the design

- For the cleanest cut: if your acrylic has a protective film, remove the film after cutting.

- Cut out the wood design using the lasercutter.
- Cut and engrave the acrylic with the design.

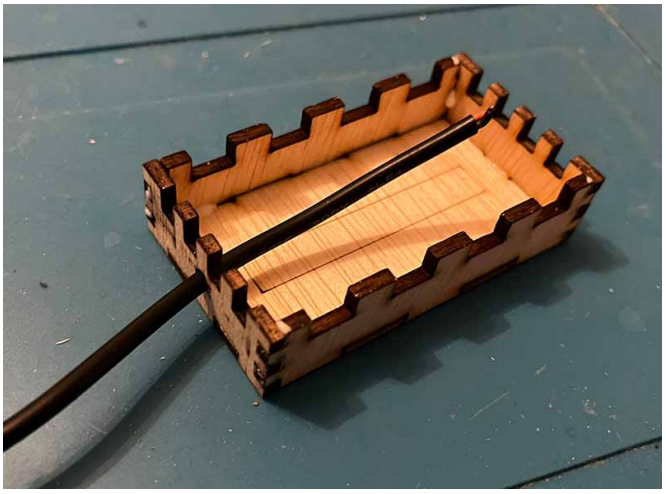


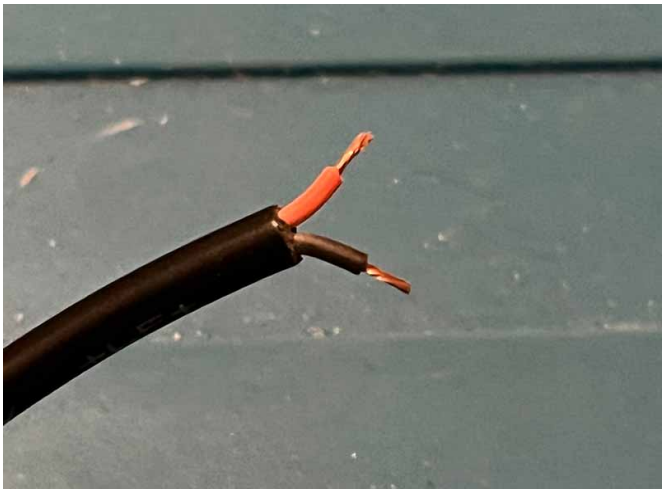


3 Assembly

- Use the cotton tip or brush to put some wood glue on the wood.

- Assemble the bottom and the sides of the stand. Make sure that the engraved square is on the inside.
- Do NOT glue the top, we still need to get inside.

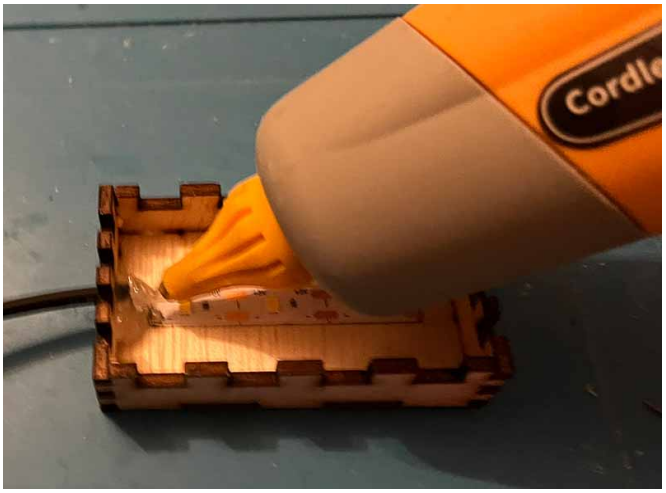


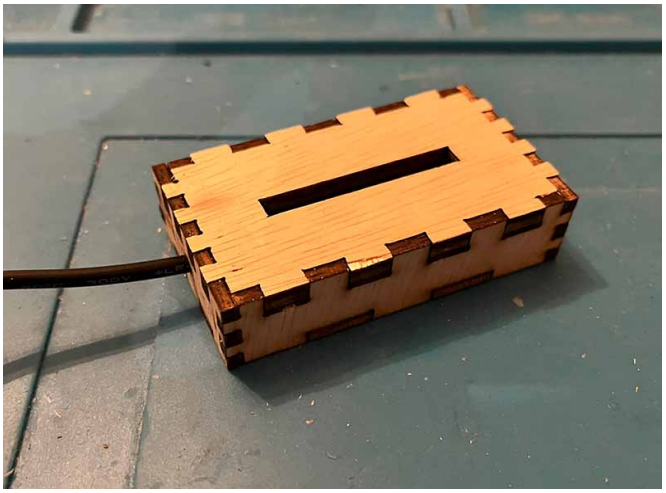


4 Solder the led strip

- When cutting LED strips, make sure to only cut at the marked spots.

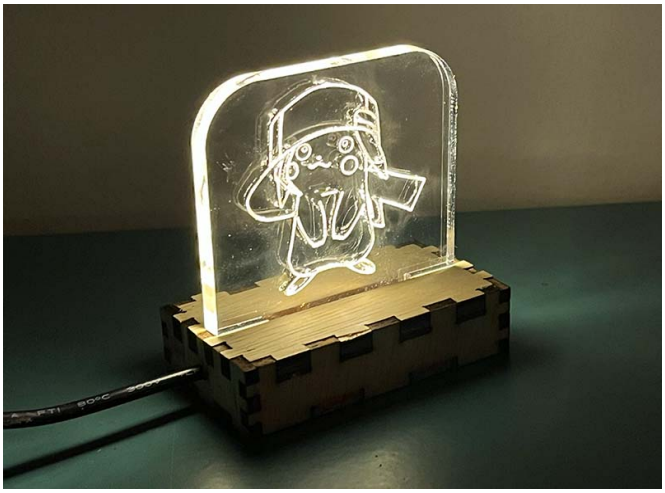
- Cut a piece of the ledstrip. You will need 3 LED's.
- Feed the cable trough the hole in the side of the box.
- Cut and strip the USB cable. You will need the red and black wire.
- Solder the red wire to the + , and the black to the - of the LED strip.
- Solder the red wire to the + , and the black to the - of the LED strip., and stick the strip to the marked spot inside the box
- Test the lights.





5 Place the LED strip

- Your LED strip might have adhesive on the back. Use this, or some hot glue, to attach your LED strip inside the engraved rectangle.
- Use the hot glue gun to attach the cable to the box.
- Glue the top of the stand on.



6 Finish it up

- Place the acrylic piece into the box and admire your work!