

Stuffed Owl

Sample

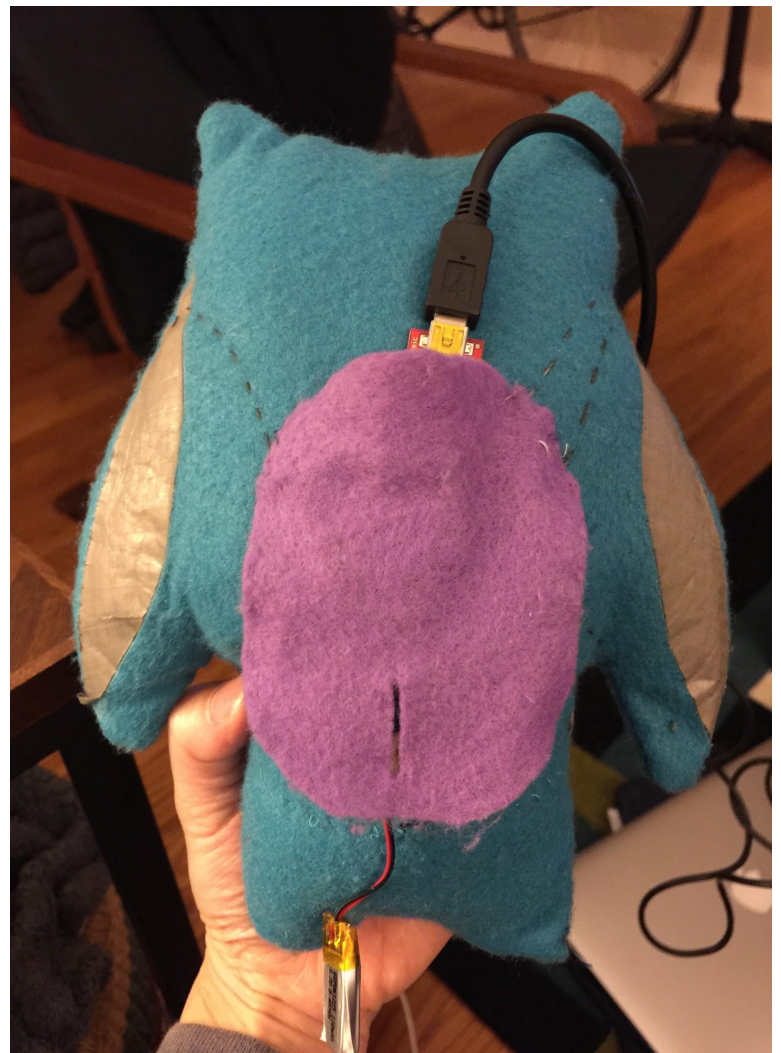
Description and Pictures of MY FINAL PROJECT

My human sensor project is an owl with touch sensors on the wings.

My project can display three light patterns. If you don't press it (greater than 1000), all the LEDs are on. If you press it lightly (between 900 and 1000), the eye lights blink. If you press it hard (less than 900), the cheek lights blink back and forth.



Front of project



Back of project (felt patch covering microcontroller)

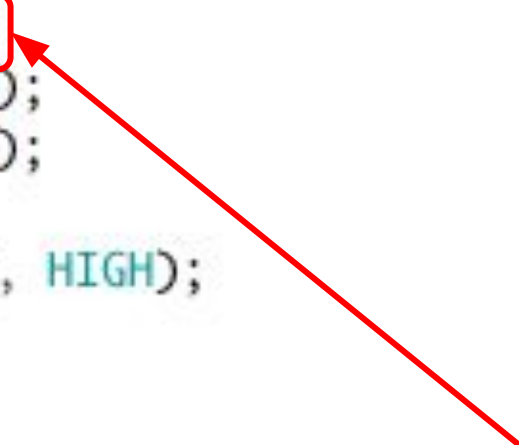
Process - A challenge I faced

One major problem was getting all the lights to work.

The left cheek LED just wasn't working.

I looked at the code for several days trying to figure it out, and I finally realized that I forgot to set the negative pin to an output. The fixed code is below.

```
void setup()
{
  pinMode(ledcheekright, OUTPUT);
  pinMode(ledcheekleft, OUTPUT);
  pinMode(ledeyes, OUTPUT);
  pinMode(negled1, OUTPUT);
  digitalWrite(negled1, LOW);
  pinMode(MetalPatch, INPUT);
  Serial.begin(9600);
  digitalWrite(MetalPatch, HIGH);
}
```



I forgot to include this line at first so the left cheek LED wasn't working.

Process - A revision I made

At first my cheek lights were under pink felt, so the LED glowed under the pink. When I had my circuitry problem though, I had to remove the pink felt to look at it, and resew the LED to make them more stable. I ended up just leaving the pink felt off.

Below is a close-up picture of the light under the pink felt, and then after I made the change.



Before (with felt)



After (without felt)

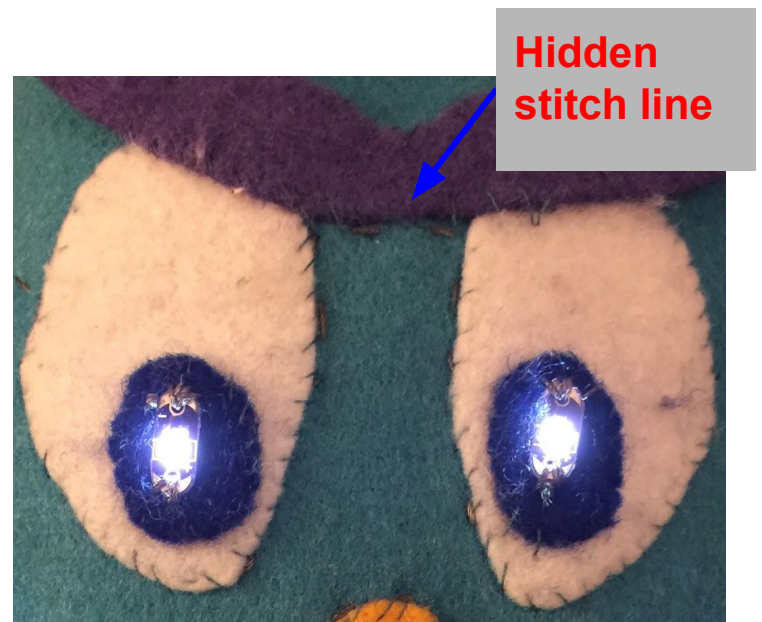
Reflections - What did I learn?

One skill I gained was becoming a better sewer. At first, I didn't try to hide the stitches at all. See my bracelet picture below.

Later, someone in class taught me to hide stitches in the felt pieces. See my human sensor project below where I did this. There, I stitched in the edges around the white eyes, so that the conductive thread lines were more hidden.



Bracelet Project



Human Sensor Project