

Human Sensor Glove

Sample

MY FINAL PROJECT - Description



(left) Glove with all LEDs on.

(bottom) The sensors are on the inside of the glove



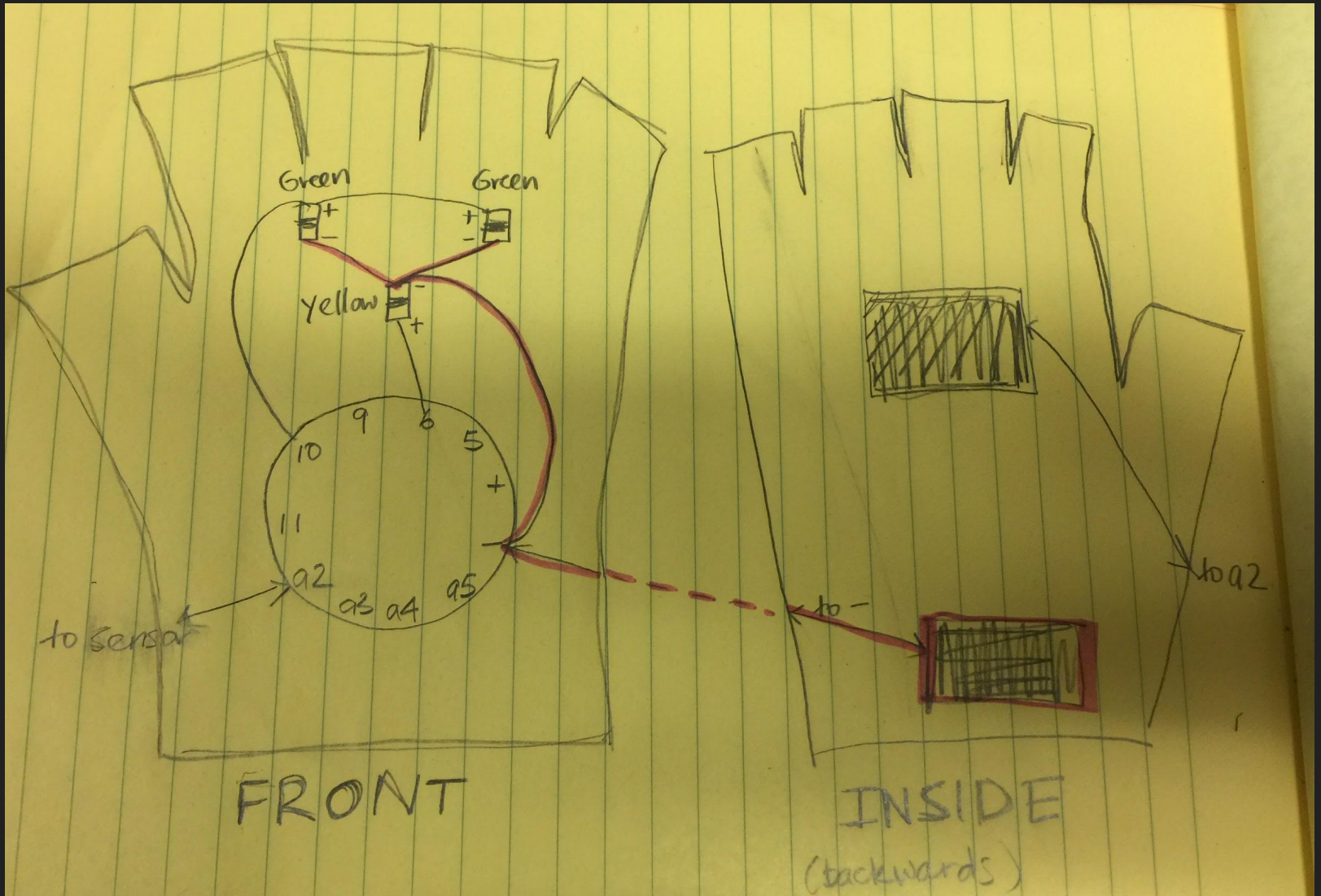
I made a glove that lights up. There are 3 LEDs (two green, one yellow).

Pattern 1: Glove off, all LEDs on.

Pattern 2: Glove on, yellow and green LEDs blink together fast.

Pattern 3: Glove on and pressing hand, yellow and green LEDs blink back and forth.

MY FINAL PROJECT - Circuit Diagram



- 2 green LEDs to pin 10 and GND
- 1 yellow LED to pin 6 and GND
- Top sensor to pin a2
- Bottom sensor to pin GND.

Pink = negative lines
Pencil = positive ones

Revision Made

I made a revision in my code.

At first my patterns were kind of simple: all on, all blinking fast and all blinking slow.

But then I changed pattern 3 to make it fancier, blinking back and forth between green and yellow. It took me a while to figure out, but I just moved around the digitalWrites and delays until it worked.

OLD pattern3
Blinking together slow

```
void Pattern3
{
    digitalWrite(greenleds, HIGH);
    digitalWrite(yellowleds, HIGH);
    delay(1500);
    digitalWrite(greenleds, LOW);
    digitalWrite(yellowleds, LOW);
    delay(500); }
}
```

NEW pattern3
Blinking back and forth
fast

```
void Pattern3
{
    digitalWrite(greenleds, HIGH);
    digitalWrite(yellowleds, LOW);
    delay(300);
    digitalWrite(greenleds, LOW);
    digitalWrite(yellowleds, HIGH);
    delay(300);
}
```


Challenge Faced

My LEDs were not lighting up as expected and I couldn't figure out why for two days.

Ms. L helped me realize it was because my skin was touching the circuitry inside and messing up the connections.

She suggested sewing felt inside to insulate the wires.

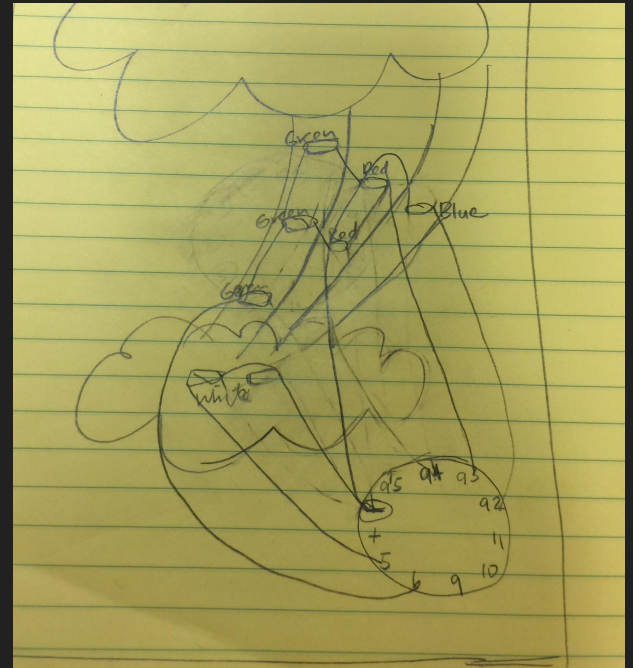


This shows the felt inside the glove. I forgot to take a picture of it before I put on the felt.

E-Textiles Reflection

I learned how to take my time in this unit.

In the beginning, I didn't realize how important this was, and kept rushing and making mistakes. For example, my banner circuit diagram (right) was super messy.



In this human sensor project, I learned how to take my time to avoid mistakes. This can be seen in my Glove Circuit diagram (bottom), which is much neater, since I took my time.

