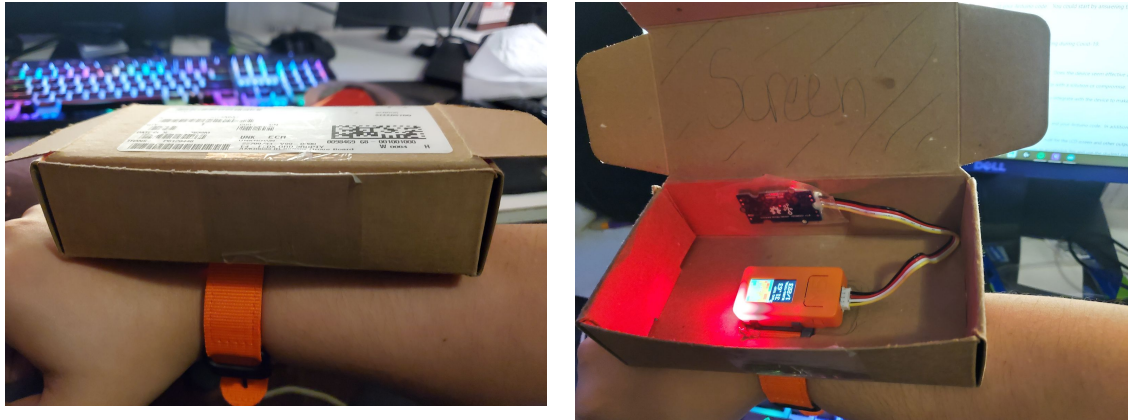# Infrared Thermal Sensor

My goal with the project was to create a thermal sensor with a screen big enough to clearly see people around you. This will allow people to adequately determine if they are too close to another person, and if they are too close to multiple people. This is indicated by a blinking red LED that goes off when you are too close to 2 or more people.

The design was based off of a character called IQ in a game called Rainbow Six Siege. In the game, she uses a similar device to detect electronics. In my design, I have a cut out for the sensor on the outside of the box, and cut out in the center bottom of the box for the M5StickC to go. The open flap of the box is supposed to represent a potential screen where you would see the sensor's readings. Below is a render of my idea along with a picture of the gadget in the game mentioned.
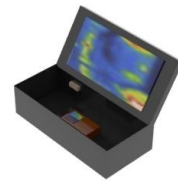
I feel that device functions fairly well. It can detect temperature from a decent distance away and the blob tracking isn't bad either. It has some shortcomings as it may incorrectly detect blobs from time to time, and it may be a bit bulky to use for everyday outings.

For a technical experience working on this project, it was a difficult one. I kept running into trouble with some of the libraries we were using and I had a somewhat hard time remembering some of the code with the break I took for finals. Despite that, after figuring everything out, it became very fun to work on and I'm glad I had the opportunity to work on a project like this.