

# LED Capture Display

Junior Siguencia

# Overview

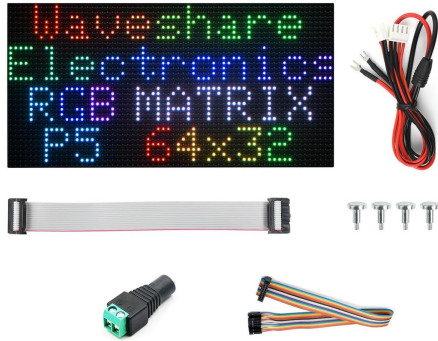
This is an individual project utilizing the XBOX Kinect's ability to capture Depth and RGB images.

The goal is to mirror the data captured by the Kinect to transfer through the Raspberry PI onto the LED Matrix to recreate the silhouette of a person

Design-wise, this display will look like a mirror with the Kinect above the matrix, all contained in a wood frame



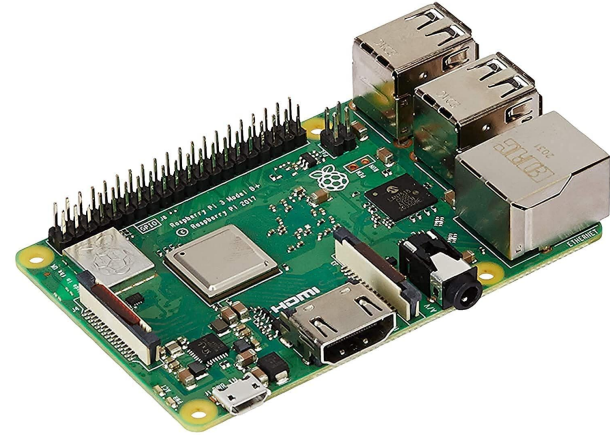
# Budget / Materials



Waveshare RGB LED Matrix ( 64 x 32 )



XBOX Kinect 360



Raspberry PI 3

# Scale

The project will be approximately 10 inches by 20 to accommodate the LED Matrix and Kinect. It will also have some depth to accommodate for the wiring and Raspberry PI.

I will also have to worry about the three separate sources of power as each major component will require power of some sort.

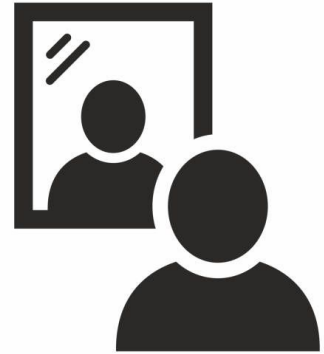
I will also leave some space for a button / switch in order to power off the contraption

# Context

As this system is meant to reflect a mirror, this display would be on the wall. It is also possible for this room to be dark

Lighting is not needed as the Kinect utilizes IR blasters to gather its information. As such, the LED Matrix can shine its brightest

This will bring concern of dimming the LED lights as if this is meant to be a mirror, direct contact is needed.



# Agenda

My agenda is to get familiar with manipulating the data extracted from the Kinect in hopes of preparing for my senior capstone project.

There has been many projects tinkering with the Kinect, such as creating a 3D scanner, so having this community will help alleviate a lot of the coding I will do.

The main obstacle is to get all these different parts working with each other and working with the Raspberry PI, which I am not familiar with

# Concept Art

