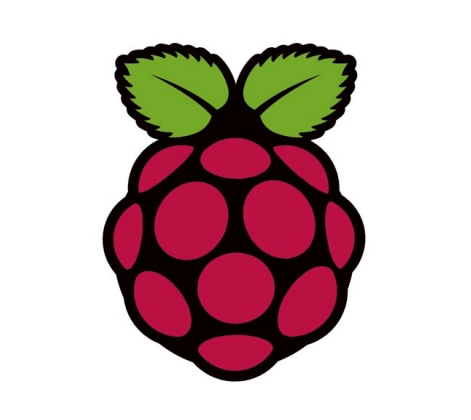
Controlling GPIO Remotely Using Leap Motion Controller and Raspberry Pi

LEAP MOTION



- I first learned that the Raspberry Pi is not powerful enough to support the use of the Leap Motion motion controlling device.

- I then decided to separate the two devices and devise a project that can still use the two devices in tandem, though not directly connected.

- The Leap Motion SDK allows for the creation of gestures that can then be assigned to any function a computer is capable of.

- Therefore, I decided to attempt controlling a LED connected to Raspberry Pi remotely from a separate computer utilizing the Leap Motion controller.

- In this way, I can use the Leap and the Pi in the same project.

Research

- I first got my hands on a Leap Motion Controller and downloaded the SDK for developers.
- I searched the documentation and found the Java code for gesture creation and recognition.
- I then looked into controlling an LED remotely using the Raspberry Pi and the SSH network protocol.
- I'll first attempt controlling an LED on the Raspberry Pi physically, then from a remote location. I'll then create gestrures using the Leap Motion and use them to control the LED.
- Possible functions include:
    - Turning the LED on and off.
    - Dim the LED
    - Change the color of the LED (Requires an RGB LED)