Software

Install pi-bluetooth:

`sudo apt install pi-bluetooth`

Install Bluez:

`sudo apt install bluez`

Enable service:

`sudo systemctl enable bluetooth`

May need to edit this file and add "--experimental" flag after "bluetoothd" (for BLE devices):

`sudo nano /lib/systemd/system/bluetooth.service`

`sudo systemctl daemon-reload`

Reboot:

`sudo reboot`

Running this command should come up with a device:

`hcitool dev`

Scanning

To scan for Bluetooth devices:

`bluetoothctl`

`> scan on`

EE:16:86:9A:C2:A8

Python

`sudo apt-get install bluetooth libbluetooth-dev`

`sudo python3 -m pip install pybluez`

`sudo python3 -m pip install gattlib`

The last two may also need to be run before the apt-get install? Will test further

The following code should now list BLE devices:

```
 # bluetooth low energy scan
from bluetooth.ble import DiscoveryService

service = DiscoveryService()
devices = service.discover(2)

for address, name in devices.items():
    print("name: {}, address: {}".format(name, address))
```

Python scripts using bluetooth need to be run with sudo

Bluepy

https://github.com/IanHarvey/bluepy/issues/313

First pip3 install bluepy

Then verify the location of bluepy-helper: `find /usr/local/lib -name bluepy-helper`

Then setcap that location with the following:

`sudo setcap 'cap_net_raw,cap_net_admin+eip' /usr/local/lib/python3.8/dist-packages/bluepy/bluepy-helper`