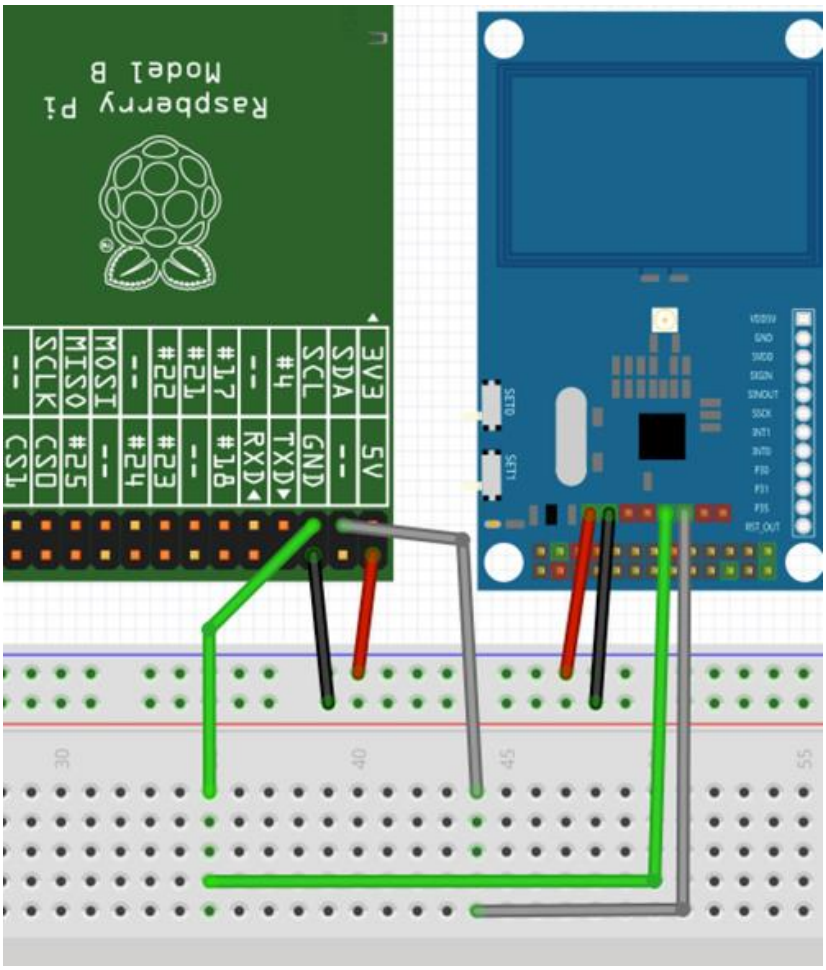
Directions For Setting up Raspberry PI and NFC

Items Needed:

- Raspberry Pi Model 2 (running raspbian)
- PN532 NFC Module
- Breadboard
- 8 Male-Female Wires (12 if connecting a LED)

Steps:

- On the PN532 Chip SET 0 to H SET 1 to L to enter i2c mode
- Enable i2c on pi within raspi-config
- Wire Pi to PN532 as shown below



Steps for wiring LED control (not necessary for running):

- Using a RGB Cathode LED
- Connect all four wires to the pins on the LED
- Using the other half of the breadboard
- Connect the two grounds together (Pin 9 on Pi)
- Connect the colors as follows
    - Blue to Pin 11
    - Green to Pin 13
    - Red to Pin 15

Python Libraries to be added:

- Add the py532lib to python it can be obtained here https://github.com/HubCityLabs/py532lib
- The firebase library is also needed and can be obtained here https://github.com/ozgur/python-firebase
- For the GPIO python library type
    - wget http://pypi.python.org/packages/source/R/RPi.GPIO/RPi.GPIO-0.1.0.tar.gz
    - tar zxf RPi.GPIO-0.1.0.tar.gz
    - cd RPi.GPIO-0.1.0
    - sudo python setup.py install
- Have these in the home folder of Raspbian.

Instructions for programming a tag (hardcoded version):

- Type "sudo python3 ProgramTag.py"
- Using a Mifare Classic tag
- Place tag on NFC Module
- Wait for program to end (LED to switch off)
- The tag has now been programmed with a specific UUID of a member of the registered users.

Instructions for running the python scripts:

- Place the dreghis.py file in the home folder of the Pi
- Type "sudo python3 dreghis.py"
- Swipe an NFC tag which is programmed with a UUID from the list of registered users.