# 08/27/2020 Khubaib: Created file, added lines to initialize spidev. Need to continue task next time.

# 08/28/2020 Stuart: Added things I need to look up, downloaded Ubuntu 16.04 on another SD card, Nathan downloaded ROS, currently trying to download OpenCV (stuck at 100%)

# 09/01/2020 Stuart: I think I solved it? Nope, can’t get to the percent part, a long error pops up. I installed everything else though (spidev, numpy)

import spidev

import cv2

import serial

import time

OUTPUT\_BYTE = 0x66

INPUT\_BYTE = 0x78

spi = spidev.SpiDev()

spi.max\_speed\_hz = 1000000

spi.mode = 0

spi.open(0, 0)

ser = serial.Serial(

port='/dev/spidev0.0',

baudrate = 115200,

parity=serial.PARITY\_NONE,

stopbits=serial.STOPBITS\_ONE,

bytesize=serial.EIGHTBITS,

timeout=1

)

verify = 0;

while verify != INPUT\_BYTE:

print(“Waiting to establish connection”)

verify = spi.xfer([OUTPUT\_BYTE])

print(“Byte sent”)

verify = ser.readline()

print(“Byte received”)

# Things to look up: How to send message from Arduino, how to read message from RPI

# while correct message not received, send byte to arduino. When I receive that byte, echo it.

print(“Connection achieved”)

Serial.println

<https://www.instructables.com/id/Read-and-write-from-serial-port-with-Raspberry-Pi/>