

Component Interfacing - 1

This file contains the instructions for interfacing the sensors listed below with Arduino ATmega2560 board:

1. Color Sensor
2. IR Sensor
3. Sharp Sensor
4. White Line Sensor

Refer to Modules for Robot file shared with you in Task 1 folder to know more about the sensors and actuators we are using in this task.

1. Color Sensor Interfacing

Required Hardware:

- Arduino ATmega2560 board
- Color Sensor
- Jumper wires



Figure 1: Color Sensor

Connect the Color Sensor with Arduino ATmega2560 board mentioned above as shown in Figure 2 using Jumper wires.

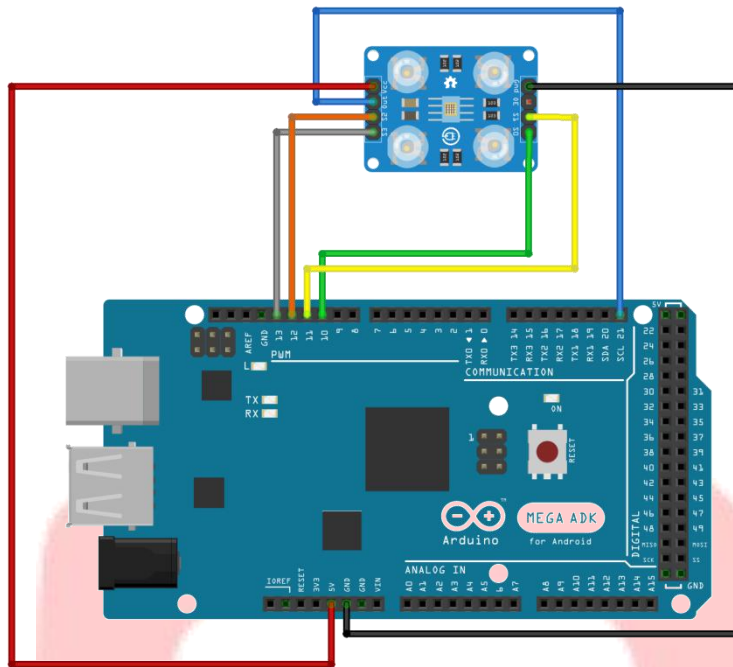


Figure 2: Color Sensor connections

2. IR Sensor Interfacing

Required Hardware:

- Arduino ATmega2560 board
- IR Proximity Sensor module
- Jumper wires

Connect IR Sensor with Arduino ATmega2560 board as shown in Figure 3 using Jumper wires:

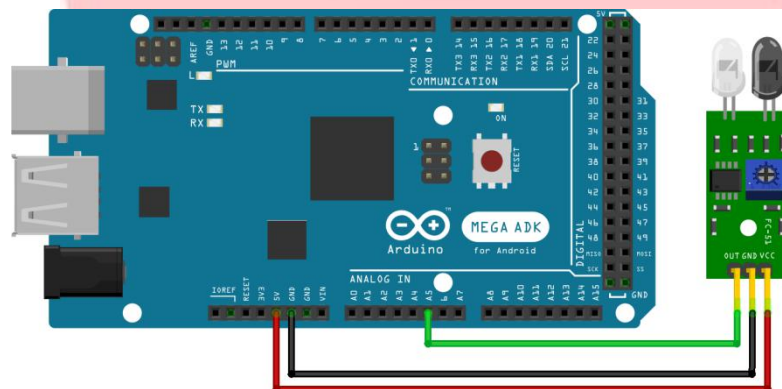


Figure 3: IR Sensor Connection

3. Sharp Sensor Interfacing

Required Hardware:

- Arduino Mega2560 board
- Sharp Sensor module
- Jumper wires

Connect the Sharp Sensor with Arduino ATmega2560 board mentioned above as shown in Figure 4 using Jumper wires.

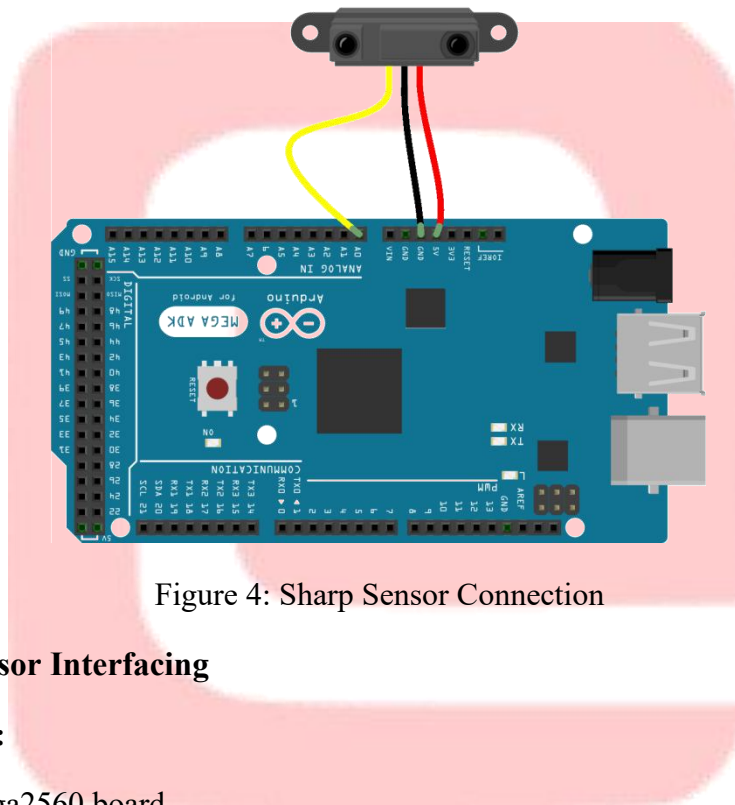


Figure 4: Sharp Sensor Connection

4. White Line Sensor Interfacing

Required Hardware:

- Arduino Mega2560 board
- 3 Segment White Line Sensor
- Jumper wires
- 10K Potentiometer - 3

Connect 3 Segment White Line Sensor with Arduino ATmega2560 board as shown in Figure 6.

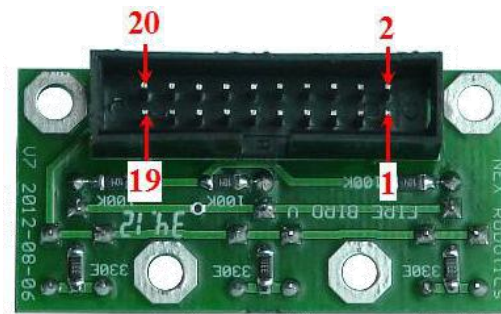


Figure 5: Line Sensor Pin-out

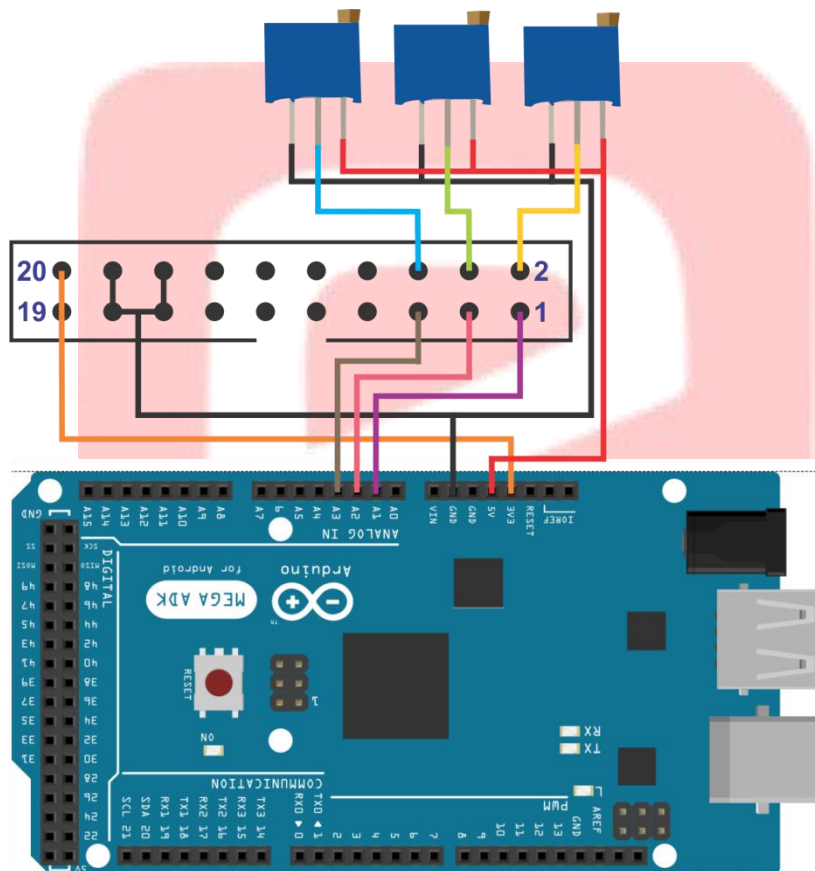


Figure 6: White Line Sensor Connection