**Receiver Circuit**

|  |  |
| --- | --- |
| Nrf24l01 | Arduino |
| GND | GND |
| VCC | 3v3 |
| CE | D7 |
| SCK | D13 |
| MISO | D12 |
| CSN | D8 |
| MOSI | D11 |

|  |  |
| --- | --- |
| Motor Driver | Arduino |
| ENA | D10 |
| IN1 | D9 |
| IN2 | D6 |
| ENB | D5 |
| IN3 | D4 |
| IN4 | D3 |
| GND | GND |
| 5V | Vin |
| 12V | +ve terminal battery |
| GND | -ve terminal battery |

Power Supplied: 7.6V to 12V

Out 1 : +ve terminals of left motors

Out 2 : -ve terminals of left motors

Out 3 : +ve terminals of right motors

Out 4 : -ve terminals of right motors

// Accelerometer Values

|  |  |  |
| --- | --- | --- |
| Position | X-Axis | Y-Axis |
| Center | 351 | 351 |
| Front | 350 | 381 |
| Back | 354 | 298 |
| Left | 295 | 336 |
| Back | 400 | 344 |

Code:

//Include Libraries

#include <SPI.h>

#include <nRF24L01.h>

#include <RF24.h>

/\*//Motor Driver Values

int ENA = 3;

int ENB = 10;

int MotorA1 = 4;

int MotorA2 = 5;

int MotorB1 = 6;

int MotorB2 = 9;

\*/

//create an RF24 object

RF24 radio(7, 8); // CE, CSN

//address through which two modules communicate.

const byte address[6] = "00001";

// Variables to receive values

struct data {

int xAxis;

int yAxis;

};

data receive\_data;

void setup()

{

/\*Temp Code \*/

Serial.begin(9600);

//Radio acting as Receiver

radio.begin();

//radio.setPALevel(RF24\_PA\_LOW);

radio.openReadingPipe(0,address);

radio.startListening();

/\*/Setting Pins for motors

pinMode(ENA, OUTPUT);

pinMode(ENB, OUTPUT);

pinMode(MotorA1, OUTPUT);

pinMode(MotorA2, OUTPUT);

pinMode(MotorB1, OUTPUT);

pinMode(MotorB2, OUTPUT);\*/

}

void loop()

{

if(radio.available()) {

radio.read(&receive\_data, sizeof(data));

Serial.print(receive\_data.xAxis);

Serial.print("------------------");

Serial.print(receive\_data.yAxis);

Serial.println("");

/\* if(receive\_data.yAxis > 355) {

digitalWrite(MotorA1, LOW);//forward

digitalWrite(MotorA2, HIGH);

digitalWrite(MotorB1, HIGH);

digitalWrite(MotorB2, LOW);

analogWrite(ENA, 150);

analogWrite(ENB, 150);

}else if(receive\_data.yAxis < 321) {

digitalWrite(MotorA1, HIGH);//reverse

digitalWrite(MotorA2, LOW);

digitalWrite(MotorB1, LOW);

digitalWrite(MotorB2, HIGH);

analogWrite(ENA, 150);

analogWrite(ENB, 150);

} else if(receive\_data.xAxis < 295){

digitalWrite(MotorA1, HIGH);//left

digitalWrite(MotorA2, LOW);

digitalWrite(MotorB1, HIGH);

digitalWrite(MotorB2, LOW);

analogWrite(ENA, 150);

analogWrite(ENB, 150);

}else if(receive\_data.xAxis > 400){

digitalWrite(MotorA1, LOW);//right

digitalWrite(MotorA2, HIGH);

digitalWrite(MotorB1, LOW);

digitalWrite(MotorB2, HIGH);

analogWrite(ENA, 150);

analogWrite(ENB, 150);

}else {

digitalWrite(MotorA1, LOW);

digitalWrite(MotorA2, LOW);

digitalWrite(MotorB1, LOW);

digitalWrite(MotorB2, LOW);

analogWrite(ENA, 0);

analogWrite(ENB, 0);

}\*/

}

Serial.print("Not found");

}