//Objective: Turn left/right, move forward, stop at finish line//

int LS=14;

int MS=15;

int RS=16;

int LM=10;

int RM=11;

int R=7;

int G=8;

int B=9;

int highR = 650;

int lowR = 150;

int highL = 750;

int lowL = 260;

int highM = 750;

int lowM = 160;

int LSrange = 300;

int RSrange = 300;

int RMLOW = 255-85;

int RMHIGH =255-(255-RMLOW)\*(1.7);

int LMLOW =255-1.3\*(255-RMLOW);

int LMHIGH =255-(255-LMLOW)\*(1.7);

void setup() {

pinMode(LS, INPUT);

pinMode(MS, INPUT);

pinMode(RS, INPUT);

pinMode(LM, OUTPUT);

pinMode(RM, OUTPUT);

pinMode(7, OUTPUT);

pinMode(8, OUTPUT);

pinMode(9, OUTPUT);

Serial.begin(9600);

}

void loop() {

Serial.println(" ");

Serial.println(analogRead(LS));

Serial.println(analogRead(MS));

Serial.println(analogRead(RS));

// digitalWrite(R, 50);

if(analogRead(RS)<=(lowR+RSrange)&& analogRead(LS)<=(lowL+LSrange))

{

Stop();

//while(true){};

}

if(analogRead(RS)<=(lowR+RSrange))

{

TurnRight();

}

else if(analogRead(LS)<=(lowL+LSrange))

{

TurnLeft();

}

else

{

MoveForward();

}

}

void TurnRight()

{

analogWrite(LM, LMHIGH);

analogWrite(RM, 255);

digitalWrite(R, 255);

digitalWrite(G, LOW);

digitalWrite(B, LOW);

}

void TurnLeft()

{

analogWrite(LM,255);

analogWrite(RM,RMHIGH);

digitalWrite(R, LOW);

digitalWrite(G, LOW);

digitalWrite(B, HIGH);

}

void MoveForward()

{

analogWrite(LM, LMLOW);

analogWrite(RM, RMLOW);

digitalWrite(R, LOW);

digitalWrite(G, HIGH);

digitalWrite(B, LOW);

}

void Stop()

{

analogWrite(LM,255);

analogWrite(RM,255);

digitalWrite(R, HIGH);

digitalWrite(G, 0);

digitalWrite(B, HIGH);

delay(1500);

}