const int ap1 = A0;

const int ap2 = A1;

int sv1 = 0;

int ov1 = 0;

int sv2 = 0;

int ov2= 0;

void setup()

{ // initialize serial communications at 9600 bps:

Serial.begin(9600);

pinMode(13,OUTPUT);

pinMode(12,OUTPUT);

pinMode(11,OUTPUT);

pinMode(10,OUTPUT);

}

void loop()

{ analogReference(EXTERNAL); //connect 3.3v to AREF

// read the analog in value:

sv1 = analogRead(ap1);

ov1 = map(sv1, 0, 1023, 0, 255);

delay(2);

sv2 = analogRead(ap2);

ov2 = map(sv2, 0, 1023, 0, 255);

delay(2);

Serial.print("Xsensor1 = " );

Serial.print(sv1);

Serial.print("\t output1 = ");

Serial.println(ov1);

Serial.print("Ysensor2 = " );

Serial.print(sv2);

Serial.print("\t output2 = ");

Serial.println(ov2);

if(analogRead(ap1)<514 &&analogRead (ap2)<463) // for backward movement

{

digitalWrite(13,HIGH);

digitalWrite(12,LOW);

digitalWrite(11,HIGH);

digitalWrite(10,LOW);

}

else

{

if(analogRead(ap1)<486 &&analogRead (ap2)>508) // for left turn

{

digitalWrite(13,LOW);

digitalWrite(12,HIGH);

digitalWrite(11,HIGH);

digitalWrite(10,LOW);

}

else

{

if(analogRead(ap1)>512 &&analogRead (ap2)>560) // for forward

{

digitalWrite(13,LOW);

digitalWrite(12,HIGH);

digitalWrite(11,LOW);

digitalWrite(10,HIGH);

}

else

{

if(analogRead(ap1)>550 &&analogRead (ap2)>512)//for right turn

{

digitalWrite(13,HIGH);

digitalWrite(12,LOW);

digitalWrite(11,LOW);

digitalWrite(10,HIGH);

}

else

{

digitalWrite(13,HIGH);

digitalWrite(12,HIGH);

digitalWrite(11,HIGH);

digitalWrite(10,HIGH);

}

}

}

}

}