const int s0= 8;

const int s1= 9;

const int s2= 10;

const int s3= 11;

const int motorA1 = 2;

const int motorA2 = 3;

const int motorB1 = 4;

const int motorB2 = 5;

void setup()

{

pinMode(s0, INPUT);

pinMode(s1, INPUT);

pinMode(s2, INPUT);

pinMode(s3, INPUT);

pinMode(motorA1, OUTPUT);

pinMode(motorA2, OUTPUT);

pinMode(motorB1, OUTPUT);

pinMode(motorB2, OUTPUT);

}

void loop()

{

int s0Value = digitalRead(s0);

int s1Value = digitalRead(s1);

int s2Value = digitalRead(s2);

int s3Value = digitalRead(s3);

if (s0Value == LOW && s1Value == HIGH && s2Value == LOW && s3Value == HIGH || s0Value == LOW && s1Value == HIGH && s2Value == LOW && s3Value == LOW)

{

moveForward();

}

else if (s0Value == HIGH && s1Value == LOW && s2Value == LOW && s3Value == HIGH || s0Value == LOW && s1Value == LOW && s2Value == LOW && s3Value == HIGH || s0Value == HIGH && s1Value == LOW && s2Value == LOW && s3Value == LOW || s0Value == LOW && s1Value == LOW && s2Value == LOW && s3Value == LOW)

{

turnLeft();

}

else if (s0Value == HIGH && s1Value == HIGH && s2Value == LOW && s3Value == LOW)

{

turnRight();

}

else if (s0Value == LOW && s1Value == HIGH && s2Value == LOW && s3Value == HIGH)

{

uTurn();

}

else

{

stopBot();

}

}

void moveForward()

{

digitalWrite(motorA1, HIGH);

digitalWrite(motorA2, LOW);

digitalWrite(motorB1, HIGH);

digitalWrite(motorB2, LOW);

}

void turnLeft()

{

digitalWrite(motorA1, HIGH);

digitalWrite(motorA2, LOW);

digitalWrite(motorB1, LOW);

digitalWrite(motorB2, LOW);

}

void turnRight()

{

digitalWrite(motorA1, LOW);

digitalWrite(motorA2, LOW);

digitalWrite(motorB1, HIGH);

digitalWrite(motorB2, LOW);

}

void stopBot()

{

digitalWrite(motorA1, LOW);

digitalWrite(motorA2, LOW);

digitalWrite(motorB1, LOW);

digitalWrite(motorB2, LOW);

}

void uTurn()

{

digitalWrite(motorA1, HIGH);

digitalWrite(motorA2, LOW);

digitalWrite(motorB1, LOW);

digitalWrite(motorB2, HIGH);

}