codigo 1

int motorLpin1=2;

int motorLpin2=3;

int motorRpin1=4;

int motorRpin2=5;

int motorLpwm=10;

int motorRpwm=11;

int motorSpeed=125;

int turn=50;

void setup() {

Serial.begin(9600);

Serial.flush();

pinMode(motorLpin1,OUTPUT);

pinMode(motorLpin2,OUTPUT);

pinMode(motorRpin1,OUTPUT);

pinMode(motorRpin2,OUTPUT);

pinMode(motorLpwm,OUTPUT);

pinMode(motorRpwm,OUTPUT);

}

void loop() {

String input="";

while(Serial.available()){

input+=(char)Serial.read();

delay(5);

}

if(input=="n"){

stp();

}

else if(input=="F"){

fwd();

}

else if(input=="R"){

rev();

}

else if(input.indexOf("TL")>-1){

lft();

}

else if(input.indexOf("TR")>-1){

rght();

}

else if(input!=""){

motorSpeed=input.toInt();

}

}

void fwd(){

analogWrite(motorLpwm,motorSpeed);

analogWrite(motorRpwm,motorSpeed);

digitalWrite(motorLpin1,1);

digitalWrite(motorLpin2,0);

digitalWrite(motorRpin1,1);

digitalWrite(motorRpin2,0);

}

void rev(){

analogWrite(motorLpwm,motorSpeed);

analogWrite(motorRpwm,motorSpeed);

digitalWrite(motorLpin1,0);

digitalWrite(motorLpin2,1);

digitalWrite(motorRpin1,0);

digitalWrite(motorRpin2,1);

}

void lft(){

analogWrite(motorLpwm,motorSpeed-turn);

analogWrite(motorRpwm,motorSpeed+turn);

digitalWrite(motorLpin1,0);

digitalWrite(motorLpin2,1);

digitalWrite(motorRpin1,1);

digitalWrite(motorRpin2,0);

}

void rght(){

analogWrite(motorLpwm,motorSpeed+turn);

analogWrite(motorRpwm,motorSpeed-turn);

digitalWrite(motorLpin1,1);

digitalWrite(motorLpin2,0);

digitalWrite(motorRpin1,0);

digitalWrite(motorRpin2,1);

}

void stp(){

analogWrite(motorLpwm,0);

analogWrite(motorRpwm,0);

digitalWrite(motorLpin1,1);

digitalWrite(motorLpin2,1);

digitalWrite(motorRpin1,1);

digitalWrite(motorRpin2,1);

}

codigo mais correto:

#define light\_FR 14 //LED Front Right pin A0 for Arduino Uno

#define light\_FL 15 //LED Front Left pin A1 for Arduino Uno

#define light\_BR 16 //LED Back Right pin A2 for Arduino Uno

#define light\_BL 17 //LED Back Left pin A3 for Arduino Uno

#define horn\_Buzz 18 //Horn Buzzer pin A4 for Arduino Uno

#define ENA\_m1 5 // Enable/speed motor Front Right

#define ENB\_m1 6 // Enable/speed motor Back Right

#define IN\_11 2 // L298N #1 in 1 motor Front Right

#define IN\_12 3 // L298N #1 in 2 motor Front Right

#define IN\_13 4 // L298N #1 in 3 motor Back Right

#define IN\_14 7 // L298N #1 in 4 motor Back Right

int command; //Int to store app command state.

int speedCar = 100; // 50 - 255.

int speed\_Coeff = 4;

boolean lightFront = false;

boolean lightBack = false;

boolean horn = false;

void setup() {

pinMode(light\_FR, OUTPUT);

pinMode(light\_FL, OUTPUT);

pinMode(light\_BR, OUTPUT);

pinMode(light\_BL, OUTPUT);

pinMode(horn\_Buzz, OUTPUT);

pinMode(ENA\_m1, OUTPUT);

pinMode(ENB\_m1, OUTPUT);

pinMode(IN\_11, OUTPUT);

pinMode(IN\_12, OUTPUT);

pinMode(IN\_13, OUTPUT);

pinMode(IN\_14, OUTPUT);

Serial.begin(9600);

}

void goAhead(){

digitalWrite(IN\_11, HIGH);

digitalWrite(IN\_12, LOW);

analogWrite(ENA\_m1, speedCar);

digitalWrite(IN\_13, LOW);

digitalWrite(IN\_14, HIGH);

analogWrite(ENB\_m1, speedCar);

}

void goBack(){

digitalWrite(IN\_11, LOW);

digitalWrite(IN\_12, HIGH);

analogWrite(ENA\_m1, speedCar);

digitalWrite(IN\_13, HIGH);

digitalWrite(IN\_14, LOW);

analogWrite(ENB\_m1, speedCar);

}

void goRight(){

digitalWrite(IN\_11, LOW);

digitalWrite(IN\_12, HIGH);

analogWrite(ENA\_m1, speedCar);

digitalWrite(IN\_14, HIGH);

digitalWrite(IN\_13, LOW);

analogWrite(ENB\_m1, speedCar);

}

void goLeft(){

digitalWrite(IN\_11, HIGH);

digitalWrite(IN\_12, LOW);

analogWrite(ENA\_m1, speedCar);

digitalWrite(IN\_14, LOW);

digitalWrite(IN\_13, HIGH);

analogWrite(ENB\_m1, speedCar);

}

void goAheadRight(){

digitalWrite(IN\_11, HIGH);

digitalWrite(IN\_12, LOW);

analogWrite(ENA\_m1, speedCar/speed\_Coeff);

digitalWrite(IN\_13, LOW);

digitalWrite(IN\_14, HIGH);

analogWrite(ENB\_m1, speedCar/speed\_Coeff);

}

void goAheadLeft(){

digitalWrite(IN\_11, HIGH);

digitalWrite(IN\_12, LOW);

analogWrite(ENA\_m1, speedCar);

digitalWrite(IN\_13, LOW);

digitalWrite(IN\_14, HIGH);

analogWrite(ENB\_m1, speedCar);

}

void goBackRight(){

digitalWrite(IN\_11, LOW);

digitalWrite(IN\_12, HIGH);

analogWrite(ENA\_m1, speedCar/speed\_Coeff);

digitalWrite(IN\_13, HIGH);

digitalWrite(IN\_14, LOW);

analogWrite(ENB\_m1, speedCar/speed\_Coeff);

}

void goBackLeft(){

digitalWrite(IN\_11, LOW);

digitalWrite(IN\_12, HIGH);

analogWrite(ENA\_m1, speedCar);

digitalWrite(IN\_13, HIGH);

digitalWrite(IN\_14, LOW);

analogWrite(ENB\_m1, speedCar);

}

void stopRobot(){

digitalWrite(IN\_11, LOW);

digitalWrite(IN\_12, LOW);

analogWrite(ENA\_m1, speedCar);

digitalWrite(IN\_13, LOW);

digitalWrite(IN\_14, LOW);

analogWrite(ENB\_m1, speedCar);

}

void loop(){

if (Serial.available() > 0) {

command = Serial.read();

stopRobot(); //Initialize with motors stopped.

if (lightFront) {digitalWrite(light\_FR, HIGH); digitalWrite(light\_FL, HIGH);}

if (!lightFront) {digitalWrite(light\_FR, LOW); digitalWrite(light\_FL, LOW);}

if (lightBack) {digitalWrite(light\_BR, HIGH); digitalWrite(light\_BL, HIGH);}

if (!lightBack) {digitalWrite(light\_BR, LOW); digitalWrite(light\_BL, LOW);}

if (horn) {digitalWrite(horn\_Buzz, HIGH);}

if (!horn) {digitalWrite(horn\_Buzz, LOW);}

switch (command) {

case 'F':goAhead();break;

case 'B':goBack();break;

case 'L':goLeft();break;

case 'R':goRight();break;

case 'I':goAheadRight();break;

case 'G':goAheadLeft();break;

case 'J':goBackRight();break;

case 'H':goBackLeft();break;

case '0':speedCar = 100;break;

case '1':speedCar = 115;break;

case '2':speedCar = 130;break;

case '3':speedCar = 145;break;

case '4':speedCar = 160;break;

case '5':speedCar = 175;break;

case '6':speedCar = 190;break;

case '7':speedCar = 205;break;

case '8':speedCar = 220;break;

case '9':speedCar = 235;break;

case 'q':speedCar = 255;break;

case 'W':lightFront = true;break;

case 'w':lightFront = false;break;

case 'U':lightBack = true;break;

case 'u':lightBack = false;break;

case 'V':horn = true;break;

case 'v':horn = false;break;

}

}

}