

“ KAIRO THE WI-FI ROBO USING NODE MCU” code*

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#define ENA 14
#define ENB 12
#define IN_1 15
#define IN_2 13
#define IN_3 2
#define IN_4 0

#include <ESP8266WiFi.h>
#include <WiFiClient.h>
#include <ESP8266WebServer.h>

String command;
int speedCar = 800;
int speed_Coeff = 3;

const char* ssid = "Harish Projects wifi car";
ESP8266WebServer server(80);

void setup() {

  pinMode(ENA, OUTPUT);
  pinMode(ENB, OUTPUT);
  pinMode(IN_1, OUTPUT);
  pinMode(IN_2, OUTPUT);
  pinMode(IN_3, OUTPUT);
  pinMode(IN_4, OUTPUT);

  Serial.begin(115200);

  // Connecting WiFi

  WiFi.mode(WIFI_AP);
  WiFi.softAP(ssid);

  IPAddress myIP = WiFi.softAPIP();
  Serial.print("AP IP address: ");
  Serial.println(myIP);

  // Starting WEB-server
  server.on ( "/", HTTP_handleRoot );
  server.onNotFound ( HTTP_handleRoot );
  server.begin();
}

void goAhead(){

  digitalWrite(IN_1, LOW);
  digitalWrite(IN_2, HIGH);
  analogWrite(ENA, speedCar);

  digitalWrite(IN_3, LOW);
  digitalWrite(IN_4, HIGH);
  analogWrite(ENB, speedCar);
}

void goBack(){

  digitalWrite(IN_1, HIGH);
  digitalWrite(IN_2, LOW);
  analogWrite(ENA, speedCar);

  digitalWrite(IN_3, HIGH);
  digitalWrite(IN_4, LOW);
  analogWrite(ENB, speedCar);
}

void goRight(){

  digitalWrite(IN_1, HIGH);
  digitalWrite(IN_2, LOW);
  analogWrite(ENA, speedCar);

  digitalWrite(IN_3, LOW);
  digitalWrite(IN_4, HIGH);
  analogWrite(ENB, speedCar);
}

void goLeft(){

  digitalWrite(IN_1, LOW);
  digitalWrite(IN_2, HIGH);
  analogWrite(ENA, speedCar);

  digitalWrite(IN_3, HIGH);
  digitalWrite(IN_4, LOW);
  analogWrite(ENB, speedCar);
}

void goAheadRight(){

  digitalWrite(IN_1, LOW);
  digitalWrite(IN_2, HIGH);
  analogWrite(ENA, speedCar/speed_Coeff);

  digitalWrite(IN_3, LOW);
  digitalWrite(IN_4, HIGH);
  analogWrite(ENB, speedCar);
}

void goAheadLeft(){

  digitalWrite(IN_1, LOW);
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    digitalWrite(IN_2, HIGH);
    analogWrite(ENA, speedCar);

    digitalWrite(IN_3, LOW);
    digitalWrite(IN_4, HIGH);
    analogWrite(ENB, speedCar/speed_Coeff);
}

void goBackRight(){

    digitalWrite(IN_1, HIGH);
    digitalWrite(IN_2, LOW);
    analogWrite(ENA, speedCar/speed_Coeff);

    digitalWrite(IN_3, HIGH);
    digitalWrite(IN_4, LOW);
    analogWrite(ENB, speedCar);
}

void goBackLeft(){

    digitalWrite(IN_1, HIGH);
    digitalWrite(IN_2, LOW);
    analogWrite(ENA, speedCar);

    digitalWrite(IN_3, HIGH);
    digitalWrite(IN_4, LOW);
    analogWrite(ENB, speedCar/speed_Coeff);
}

void stopRobot(){

    digitalWrite(IN_1, LOW);
    digitalWrite(IN_2, LOW);
    analogWrite(ENA, speedCar);

    digitalWrite(IN_3, LOW);
    digitalWrite(IN_4, LOW);
    analogWrite(ENB, speedCar);
}

void loop() {
    server.handleClient();

    command = server.arg("State");
    if (command == "F") goAhead();
    else if (command == "B") goBack();
    else if (command == "L") goLeft();
    else if (command == "R") goRight();
    else if (command == "I") goAheadRight();
    else if (command == "G") goAheadLeft();
    else if (command == "J") goBackRight();

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    else if (command == "H") goBackLeft();
    else if (command == "0") speedCar = 400;
    else if (command == "1") speedCar = 470;
    else if (command == "2") speedCar = 540;
    else if (command == "3") speedCar = 610;
    else if (command == "4") speedCar = 680;
    else if (command == "5") speedCar = 750;
    else if (command == "6") speedCar = 820;
    else if (command == "7") speedCar = 890;
    else if (command == "8") speedCar = 960;
    else if (command == "9") speedCar = 1023;
    else if (command == "S") stopRobot();
}

void HTTP_handleRoot(void) {

    if( server.hasArg("State") ){
        Serial.println(server.arg("State"));
    }
    server.send ( 200, "text/html", "" );
    delay(1);
}

```