

```
//This program is the ESP8266 side of Robo_Car project.
```

```
#include <ESP8266WiFi.h>
#include <ESP8266mDNS.h>
#include <WiFiClient.h>
#include <Servo.h>
```

```
Servo armServo;
Servo tweezerServo;
int Speed=6;
```

```
const char* ssid = "JioFi3_2875D4";
const char* password = "deepudeepthi";
```

```
String
cmds[]={ "arm_up", "arm_down", "tweezers_tighten", "tweezers_loosen", "move_forward", "m
ove_backward", "move_right", "move_left", "stop"};
```

```
// TCP server at port 80 will respond to HTTP requests
WiFiServer server(80);
```

```
void setup(void)
{
```

```
  Serial.begin(115200);
  armServo.attach(D7);
  tweezerServo.attach(D8);
  tweezerServo.write(0);
```

```
  // Connect to WiFi network
  WiFi.begin(ssid, password);
```

```
  // Wait for connection
  while (WiFi.status() != WL_CONNECTED) {
    delay(500);
  }
```

```
  if (!MDNS.begin("esp8266")) {
    while(1) {
      delay(1000);
    }
  }
  server.begin();
```

```
  MDNS.addService("http", "tcp", 80);
}
```

```
void loop(void)
{
```

```

// Check if a client has connected
WiFiClient client = server.available();
if (!client) {
    return;
}

// Wait for data from client to become available
while(client.connected() && !client.available()){
    delay(1);
}

// Read the first line of HTTP request
String req = client.readStringUntil('\r');

// First line of HTTP request looks like "GET /path HTTP/1.1"
// Retrieve the "/path" part by finding the spaces
int addr_start = req.indexOf(' ');
int addr_end = req.indexOf(' ', addr_start + 1);
if (addr_start == -1 || addr_end == -1) {

    return;
}
req = req.substring(addr_start+2 , addr_end);
client.flush();

String s;
if (elementinarray(req,10,cmds)>0)
{

    executecommand(req);
    s = "HTTP/1.1 200 OK\r\nContent-Type: text/html\r\n\r\n<!DOCTYPE
HTML>\r\n<html>OK";
    s += "</html>\r\n\r\n";

}
else
{
    s = "HTTP/1.1 404 Not Found\r\n\r\n";
}
client.print(s);

}

int elementinarray(String element,int arraysize,String Array[]){
for(int i=0;i<=(arraysize-1);i+=1){
    if((element.indexOf("speed_changev"))>-1){
        return 2;
    }
    if (Array[i]==element){

```

```

        return 1;
    }
}
return 0;
}

void executecommand(String cmd) {

    if (cmd==cmds[0])
    {

        Serial.print('a');
    }
else if (cmd==cmds[1])
    {
        Serial.print('b');

    }
else if (cmd==cmds[2])
    {
        Serial.print('c');
    }
else if (cmd==cmds[3])
    {
        Serial.print('d');
    }

else if (cmd==cmds[4]) {
    Serial.print('e');
}
else if (cmd==cmds[5]) {
    Serial.print('f');
}
else if (cmd==cmds[7]) {
    Serial.print('g');
}
else if (cmd==cmds[6]) {
    Serial.print('h');
}
else if (cmd==cmds[9]) {
    Serial.print('i');
}
else if (cmd.indexOf(cmds[8])>-1) {

    int i1=cmd.indexOf("v");
    int i2=cmd.length();
    String val=cmd.substring(i1+1,i2);
    Speed=val.toInt();
}
}

```

