```cpp
#define BLYNK_PRINT Serial
#include <WiFi.h>
#include <WiFiClient.h>
#include <BlynkSimpleEsp32.h>
#include <DHT.h>
char auth[] = "o86UfHjO-4ptAuQt2B39QOGaR2YukGc8";
char ssid[] = "krupa";
char pass[] = "U-can_set";
const int ml1 = 5;
const int ml2 = 4;
const int mr1 = 2;
const int mr2 = 15;
float h;
float t;
int rain_sensor = 23;
int rain_status;
int rain;
int trigPin = 13; // Trigger
int echoPin = 27; // Echo
long duration, cm, inches;
int prox;
#define DHTPIN 14
#define DHTTYPE DHT11 // DHT 11
DHT dht(DHTPIN, DHTTYPE);
BlynkTimer timer;
WidgetLCD lcd(V0);//virtual port number on app lcd data to be
connect
void sendSensor()
{
Blynk.virtualWrite(V2, h);
Blynk.virtualWrite(V3, t);
Blynk.virtualWrite(V4,rain);
}
// movements// movements// movements
BLYNK_WRITE(V1)
{
int x = param[0].asInt();
int y = param[1].asInt();
Serial.print("X = ");
Serial.print(x);
Serial.print("; Y = ");
Serial.println(y);
if(x < 512 && y == 1023 )
```

```
{
Serial.println("FORWARD");
lcd.clear();
lcd.print(1, 0, "Forward"); // use: (position X: 0-15, position Y:
0-1, "Message you want to print")
digitalWrite(ml1, HIGH);//forward
digitalWrite(ml2,LOW);
digitalWrite(mr1,HIGH);
digitalWrite(mr2,LOW);
}
else if(x >512 && y==1023)
{
Serial.println("FORWARD");
lcd.clear();
lcd.print(1, 0, "Forward"); // use: (position X: 0-15, position Y:
0-1, "Message you want to print")
digitalWrite(ml1, HIGH);//forward
digitalWrite(ml2,LOW);
digitalWrite(mr1,HIGH);
digitalWrite(mr2,LOW);
}
else if(x<512 && y==0)
{
Serial.println("reverse");
lcd.clear();
lcd.print(1, 0, "Reverse"); // use: (position X: 0-15, position Y: 0-
1, "Message you want to print")
digitalWrite(ml1, LOW);//reverse
digitalWrite(ml2,HIGH);
digitalWrite(mr1,LOW);
digitalWrite(mr2,HIGH);
}
else if(x>512 && y==0)
{
Serial.println("reverse");
lcd.clear();
lcd.print(1, 0, "Reverse"); // use: (position X: 0-15, position Y: 0-
1, "Message you want to print")
digitalWrite(ml1, LOW);//reverse
digitalWrite(ml2,HIGH);
digitalWrite(mr1,LOW);
digitalWrite(mr2,HIGH);
}
```

```
else if(x ==0 && y<512)
{
Serial.println("left");
lcd.clear();
lcd.print(1, 0, "Left"); // use: (position X: 0-15, position Y: 0-1,
"Message you want to print")
digitalWrite(ml1, HIGH);//left
digitalWrite(ml2,LOW);
digitalWrite(mr1,LOW);
digitalWrite(mr2,LOW);
}
else if(x==0 && y>512)
{
Serial.println("left");
lcd.clear();
lcd.print(1, 0, "Left"); // use: (position X: 0-15, position Y: 0-1,
"Message you want to print")
digitalWrite(ml1, HIGH);//left
digitalWrite(ml2,LOW);
digitalWrite(mr1,LOW);
digitalWrite(mr2,LOW);
}
else if(x==1023 && y>512)//right
{
Serial.println("right");
lcd.clear();
lcd.print(1, 0, "Right");
digitalWrite(ml1, LOW);
digitalWrite(ml2,LOW);
digitalWrite(mr1,HIGH);
digitalWrite(mr2,LOW);
}
else if(x==1023 && y<512)//right
{
Serial.println("right");
lcd.clear();
lcd.print(1, 0, "Right");
digitalWrite(ml1, LOW);
digitalWrite(ml2,LOW);
digitalWrite(mr1,HIGH);
digitalWrite(mr2,LOW);
}
else if(x == 512 && y == 512)//stop
```

```
{
Serial.println("stop");
lcd.clear();
lcd.print(1, 0, "Stop");
digitalWrite(ml1, HIGH);
digitalWrite(ml2, HIGH);
digitalWrite(mr1, HIGH);
digitalWrite(mr2, HIGH);
}
else
{
Serial.println("stop");
lcd.clear();
lcd.print(1, 0, "Stop");
digitalWrite(ml1, HIGH);
digitalWrite(ml2, HIGH);
digitalWrite(mr1, HIGH);
digitalWrite(mr2, HIGH);
}
if (cm <=10)
{
Serial.println("obstacle stop");
}
}
void setup(){
pinMode(rain_sensor,INPUT);
pinMode(ml1, OUTPUT);
pinMode(ml2,OUTPUT);
pinMode(mr1, OUTPUT);
pinMode(mr2,OUTPUT);
pinMode(trigPin, OUTPUT);
pinMode(echoPin, INPUT);
Serial.begin(9600);
Blynk.begin(auth, ssid, pass);
dht.begin();
timer.setInterval(1000L, sendSensor);
}
void loop(){
rain_status = digitalRead(rain_sensor);
if(rain_status == 0){
rain = 1;
}
if(rain_status == 1){
```

```
rain = 0;
}
digitalWrite(trigPin, LOW);
delayMicroseconds(5);
digitalWrite(trigPin, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin, LOW);
pinMode(echoPin, INPUT);
duration = pulseIn(echoPin, HIGH);
cm = (duration/2) / 29.1; // Divide by 29.1 or multiply by
0.0343
Serial.print("cm:");
Serial.print(cm);
Serial.println();
h = dht.readHumidity();
t = dht.readTemperature(); // or dht.readTemperature(true) for
Fahrenheit
if (isnan(h) || isnan(t)) {
Serial.println("Failed to read from DHT sensor!");
return;
}
if (cm <=40)
{
Serial.println("obstacle stop");
lcd.clear();
lcd.print(1, 0, "obstacle Stop");
digitalWrite(ml1, LOW);
digitalWrite(ml2, LOW);
digitalWrite(mr1, LOW);
digitalWrite(mr2, LOW);
}
delay(100);
Blynk.run();
timer.run();
}
```