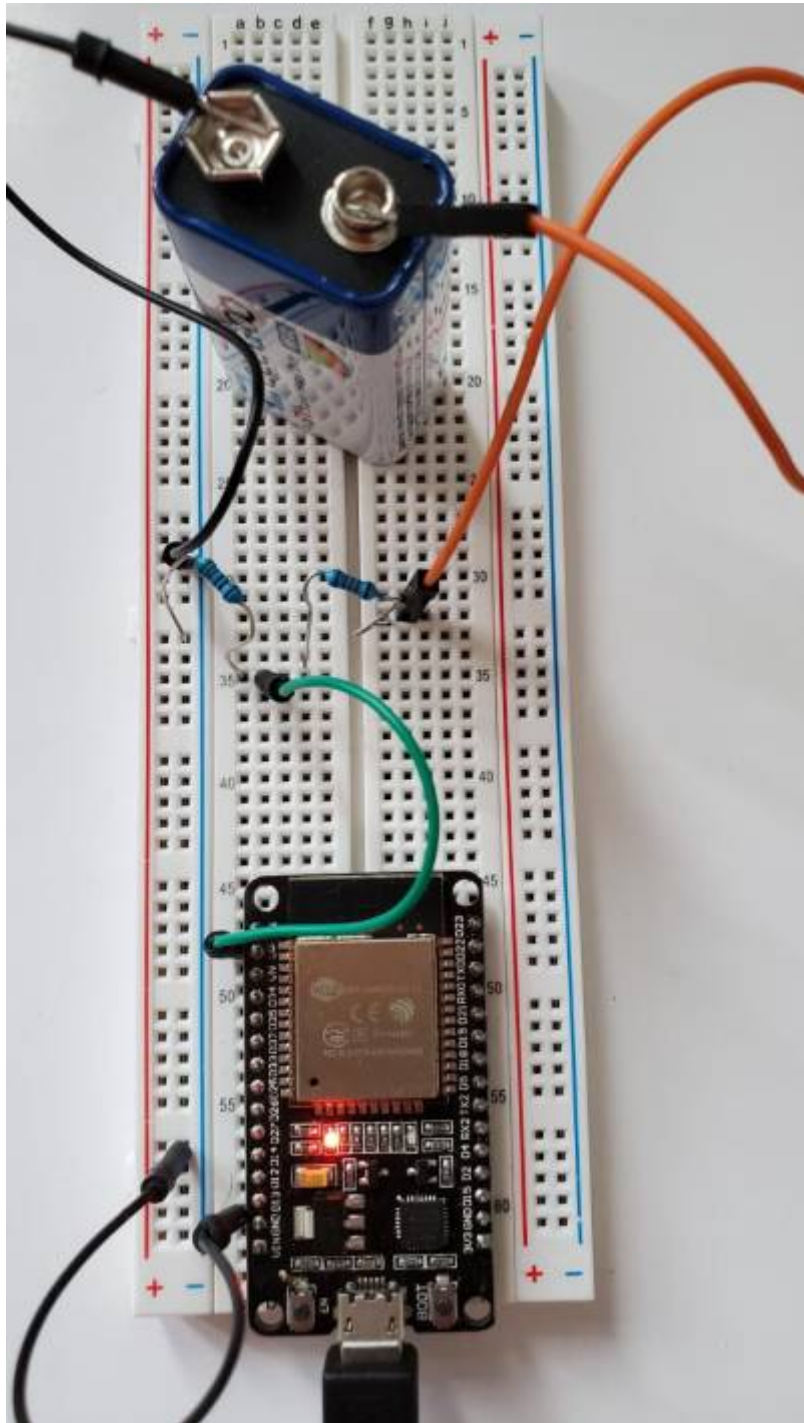
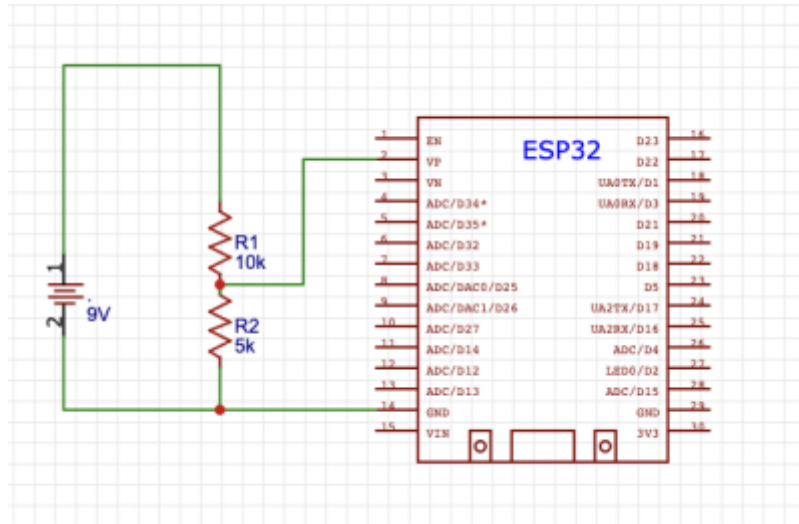


Build



Schematics



Code & Description

```
*/Reading of voltage

int potPin = A0;           // Analog pin has to be ADC 1, because ADC 2 are used
                           // by wifi and wont work
int potValue;             // do not change
float voltage =0;         // float because its a decimal number not integer
float battery_percent;

void setup() {

  Serial.begin(115200);

  {

    potValue = analogRead(potPin);
    float voltage = (3.3/4095.0) * potValue * 2.73;           //2.73 or 3 actual
    ratio is the calibration

    Serial.print("potValue:");                               //NOT NEEDED FOR FINAL CODE
    Serial.print(potValue);                                  //NOT NEEDED

    Serial.print(" Voltage:");
    Serial.print(voltage);
    Serial.println("V");

    battery_percent = mapfloat(voltage, 3.0, 9.0, 0 , 100); // min value cut
```

off at 6V and maximum voltage is 9V

```
if (battery_percent > 100)
{
    battery_percent = 100;
}
if (battery_percent < 0)
{
    battery_percent = 0;
}

Serial.print("Battery Percentage = ");
Serial.println(battery_percent);

if (voltage > 7.0 && voltage < 8.2) // THIS VALUES HAVE TO CHANGE
ACCORDING TO SOURCE
{Serial.print("Low bat");           // USE VOLTMETER TO FIND
THE ACCURATE VOLTAGE
}
if (voltage <6.5) //cut-off value is at 6V according to
specification , we use 6.5V
{Serial.print("Replace Battery");
}
delay(1000);

}
}

float mapfloat(float x, float in_min, float in_max, float out_min, float
out_max)
{
    return (x - in_min) * (out_max - out_min) / (in_max - in_min) + out_min;
}

void loop()
{

}

// NO LOOP NEEDED,,, ONE VALUE WITH
WARNING SHOULD BE DISPLAYED ON GRAFANA
```

Results

```
ÿÿL@F Zÿ = 04ÿÿ
ÿÿpotValue:0 Voltage:0.00V
Battery Percentage = 0.00
Replace Batteryets Jun  8 2016 00:22:57

rst:0x1 (POWERON_RESET),boot:0x13 (SPI_FAST_FLASH_BOOT)
configsip: 0, SPIWP:0xee
clk_drv:0x00,q_drv:0x00,d_drv:0x00,cs0_drv:0x00,hd_drv:0x00,wp_drv:0x00
mode:DIO, clock div:1
load:0x3fff0030,len:1344
load:0x40078000,len:13516
load:0x40080400,len:3604
entry 0x400805f0
potValue:2566 Voltage:5.65V
Battery Percentage = 44.09
Replace Batteryets Jun  8 2016 00:22:57

rst:0x1 (POWERON_RESET),boot:0x13 (SPI_FAST_FLASH_BOOT)
configsip: 0, SPIWP:0xee
clk_drv:0x00,q_drv:0x00,d_drv:0x00,cs0_drv:0x00,hd_drv:0x00,wp_drv:0x00
mode:DIO, clock div:1
load:0x3fff0030,len:1344
load:0x40078000,len:13516
load:0x40080400,len:3604
entry 0x400805f0
potValue:0 Voltage:0.00V
Battery Percentage = 0.00
Replace Batteryets Jun  8 2016 00:22:57

rst:0x1 (POWERON_RESET),boot:0x13 (SPI_FAST_FLASH_BOOT)
configsip: 0, SPIWP:0xee
clk_drv:0x00,q_drv:0x00,d_drv:0x00,cs0_drv:0x00,hd_drv:0x00,wp_drv:0x00
mode:DIO, clock div:1
load:0x3fff0030,len:1344
load:0x40078000,len:13516
load:0x40080400,len:3604
entry 0x400805f0
potValue:2557 Voltage:5.63V
Battery Percentage = 43.76
Replace Battery
```

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