

Frequency Counter

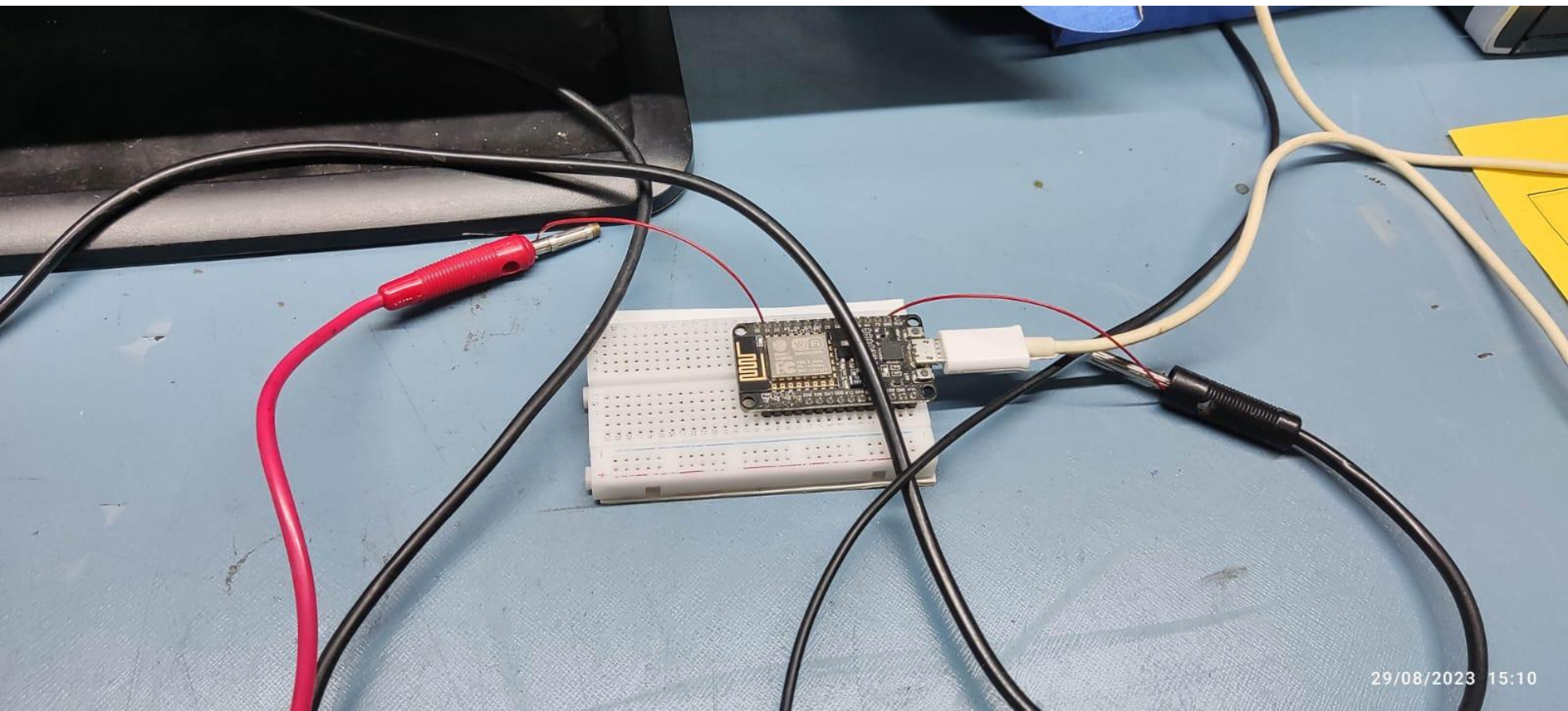
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29/08/2023 14:55



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frequency_measurement.ino

```
1  #define BUTTON_PIN D1
2
3  void setup()
4  {
5      Serial.begin(9600);
6      pinMode(BUTTON_PIN, INPUT);
7  }
8
9  void loop()
10 {
11     float duration = pulseIn(BUTTON_PIN, HIGH);
12     float pulsePeriod = duration/500 ;
13     float frequency = 1 / pulsePeriod;
14     Serial.print("Time Period = ");
15     Serial.print(pulsePeriod);
16     Serial.println(" mili second");
17     Serial.print("Frequency = ");
18     Serial.print(frequency);
19     Serial.println(" KHz");
20     delay(5000);
21 }
```

Output Serial Monitor ×

14:58:38.165 -> Time Period = 10.00 mili second
14:58:38.212 -> Frequency = 0.10 KHz
14:58:43.158 -> Time Period = 11.11 mili second
14:58:43.189 -> Frequency = 0.09 KHz
14:58:48.184 -> Time Period = 12.50 mili second

Carriage Return ▾ 9600 baud ▾

Activate Windows
Go to Settings to activate Windows.

Ln 16, Col 34 NodeMCU 1.0 (ESP-12E Module) on COM3 3 ▾

Output Serial Monitor ×

"

14:55:28.044 -> Time Period = 1.00 mili second
14:55:28.075 -> Frequency = 1.00 KHz
14:55:33.070 -> Time Period = 1.00 mili second
14:55:33.111 -> Frequency = 1.00 KHz
14:55:38.062 -> Time Period = 1.00 mili second
14:55:38.094 -> Frequency = 1.00 KHz
14:55:43.054 -> Time Period = 1.00 mili second
14:55:43.087 -> Frequency = 1.00 KHz
14:55:48.044 -> Time Period = 1.00 mili second
14:55:48.119 -> Frequency = 1.00 KHz
14:55:53.045 -> Time Period = 1.00 mili second
14:55:53.078 -> Frequency = 1.00 KHz
14:55:58.071 -> Time Period = 1.00 mili second
14:55:58.120 -> Frequency = 1.00 KHz
14:56:03.074 -> Time Period = 1.00 mili second



🔍 Type here to search



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Frequency Counter

```
#define BUTTON_PIN D1
```

```
void setup()
```

```
{  
  Serial.begin(9600);  
  pinMode(BUTTON_PIN, INPUT);  
}
```

```
void loop()
```

```
{  
  float duration = pulseIn(BUTTON_PIN, HIGH);  
  float pulsePeriod = duration/500 ;  
  float frequency = 1 / pulsePeriod;  
  Serial.print("Time Period = ");  
  Serial.print(pulsePeriod);  
  Serial.println(" mili second");  
  Serial.print("Frequency = ");  
  Serial.print(frequency);  
  Serial.println(" KHz");  
  delay(5000);  
}
```

```

#include <SPI.h>
#include <Wire.h>
#include <Adafruit_GFX.h>
#include <Adafruit_SH110X.h>
#define SCREEN_WIDTH 128
#define SCREEN_HEIGHT 64
#define OLED_RESET -1 // Reset pin
#define SCREEN_ADDRESS 0x3C
Adafruit_SH1106G display = Adafruit_SH1106G(SCREEN_WIDTH,
SCREEN_HEIGHT, &Wire, OLED_RESET);
#define BUTTON_PIN D3
void setup()
{
  Serial.begin(9600);
  pinMode(BUTTON_PIN, INPUT);
  display.begin(SCREEN_ADDRESS, true);
  display.display();
  delay(2000);
  display.clearDisplay();
  display.setTextSize(2);
  display.setTextColor(SH110X_WHITE);
  display.setCursor(0,0);
  display.println(" RPM Meter");
  display.println(" Designed ");
  display.println(" by ");
  display.println(" Dinesh ");
  display.display();
  delay(2000);
}

void loop()
{
  float duration = pulseIn(BUTTON_PIN, HIGH);
  float pulsePeriod = duration/500 ;
  float frequency = 1 / pulsePeriod;
  Serial.print("Time Period = ");
  Serial.print(pulsePeriod);
  Serial.println(" mili second");
  Serial.print("Frequency = ");
  Serial.print(frequency);
  Serial.println(" KHz");
  Serial.print("Motor RPM = ");
  Serial.print(frequency * 30);
  Serial.println(" rpm");
  Serial.println("");
  display.display();
  display.clearDisplay();
  display.setTextSize(2);
  display.setTextColor(SH110X_WHITE);
  display.setCursor(0,0);
  display.println(" RPM ");
  display.println("");
  display.print(" ");
  display.print(frequency * 30);
  delay(5000);
}

```

Frequency Counter with display and measure RPM of Motor