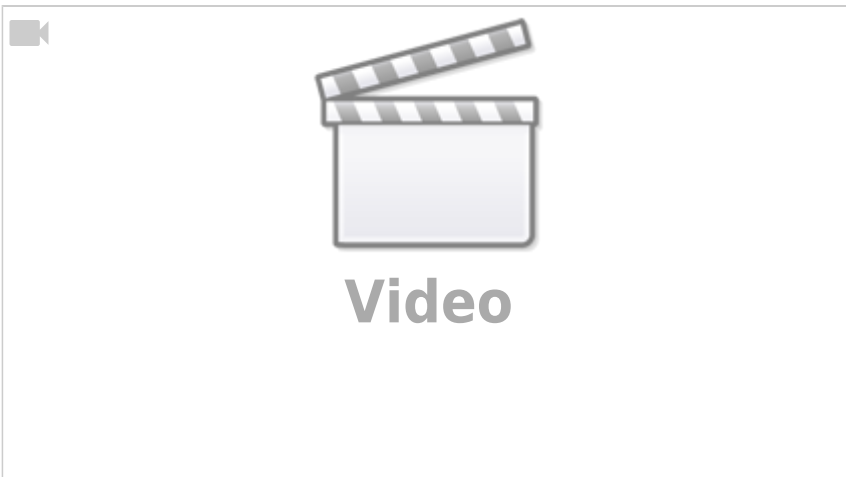




Arduino: Zegar cyfrowy z pomiarem temperatury

```
#include "RTCLib.h"
#include <Arduino.h>
#include <TM1637Display.h>
#include "DHT.h"
#include <OneWire.h>
#include <DallasTemperature.h>
#include <SPI.h>
#include <Wire.h>

#define CLK 6
#define DIO 4
#define DHTPIN 9
#define DHTTYPE DHT11

#define ONE_WIRE_BUS 3

RTC_DS1307 rtc;

TM1637Display display(CLK, DIO);

DHT dht(DHTPIN, DHTTYPE);

OneWire oneWire(ONE_WIRE_BUS);
DallasTemperature sensors(&oneWire);

void setup() {

    rtc.begin();
    sensors.begin();

    display.setBrightness(0x0f);
    display.showNumberDecEx(8888, 0b01000000, false);
    delay(3000);
    display.clear();
    display.setBrightness(3);
```

```
Serial.begin(57600);
dht.begin();
}

void loop() {
  sensors.requestTemperatures();
  float tempC = sensors.getTempCByIndex(0);
  int tempINT = round(tempC);
  DateTime now = rtc.now();
  int Minute = now.minute();
  int Hour = now.hour();
  String strMinute;
  String strHour;
  float h = dht.readHumidity();
  float t = dht.readTemperature();

  if(Hour < 10)
    {strHour = "0" + String(Hour);}
  else if(Hour >= 10)
    {strHour = String(Hour);}
  else if(Hour == 0)
    {strHour = "00";}

  if(Minute < 10)
    {strMinute = "0" + String(Minute);}
  else if(Minute >= 10)
    {strMinute = String(Minute);}
  else if(Minute == 0)
    {strMinute = "00";}

  String Time;
  Time += strHour;
  Time += strMinute;

  if(Time == "0"){
    Time = "0000";
  }

  Serial.println(tempC);
  Serial.println(tempINT);
  int numTime = Time.toInt();
  display.clear();
  display.showNumberDecEx(numTime,0b01000000, true);
  delay(2000);
  display.clear();
  display.showNumberDec(t,false,2,1);
  delay(2000);
  display.clear();
  display.showNumberDec(h,false,2,1);
```

```
delay(2000);  
display.clear();  
display.showNumberDec(tempINT, false, 2, 1);  
delay(2000);  
  
}
```