**Download Header files from:** <https://github.com/PaulStoffregen/DS1307RTC>

<https://github.com/PaulStoffregen/Time>

<https://drive.google.com/drive/folders/10qY03EppyRMutP2UZHws02kgevRmii9l>

/\* This code is to use with DS1307 RTC and LCD i²c screen

\* It displays the time and date HH:MM:ss DD/MM/YY 24h as 2 digits format e.g: 02 instead of 2

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#include <LiquidCrystal\_I2C.h>

#include <Wire.h>

#include <TimeLib.h>

#include <DS1307RTC.h>

#define I2C\_ADDR 0x27 //I2C adress, you should use the code to scan the adress first (0x27) here

#define BACKLIGHT\_PIN 3 // Declaring LCD Pins

#define En\_pin 2

#define Rw\_pin 1

#define Rs\_pin 0

#define D4\_pin 4

#define D5\_pin 5

#define D6\_pin 6

#define D7\_pin 7

tmElements\_t tm;

LiquidCrystal\_I2C lcd(I2C\_ADDR,En\_pin,Rw\_pin,Rs\_pin,D4\_pin,D5\_pin,D6\_pin,D7\_pin);

void setup() {

lcd.begin (16,2);

lcd.setBacklightPin(BACKLIGHT\_PIN,POSITIVE);

lcd.setBacklight(HIGH); //Lighting backlight

lcd.home();

lcd.print("Hi");

delay(1000);

}

void loop() {

lcd.clear();

if (RTC.read(tm)) {

print2digits(tm.Hour);

lcd.print(':');

print2digits(tm.Minute);

lcd.print(':');

print2digits(tm.Second);

lcd.setCursor(0,1);

print2digits(tm.Day);

lcd.print('/');

print2digits(tm.Month);

lcd.print('/');

lcd.print(tmYearToCalendar(tm.Year));

}

delay(1000);

}

void print2digits(int number) { //Testing on the number before displaying it

if (number >= 0 && number < 10) { //if it's 0<=x<10 we add a 0 before e.g: 4 -> 04

lcd.print('0');

}

lcd.print(number);

}

**#include <TimeLib.h>**

**#include <DS1307RTC.h>**

**#include <SPI.h>**

**#include <Wire.h>**

**#include <Adafruit\_GFX.h>**

**#include <Adafruit\_SSD1306.h>**

**#define SCREEN\_WIDTH 128 // OLED display width, in pixels**

**#define SCREEN\_HEIGHT 32 // OLED display height, in pixels**

**#define DS1307\_CTRL\_ID 0x68**

**// Declaration for an SSD1306 display connected to I2C (SDA, SCL pins)**

**#define OLED\_RESET 4 // Reset pin # (or -1 if sharing Arduino reset pin)**

**Adafruit\_SSD1306 display(SCREEN\_WIDTH, SCREEN\_HEIGHT, &Wire, OLED\_RESET);**

**tmElements\_t tm;**

**void setup() {**

**Serial.begin(9600);**

**display.begin(SSD1306\_SWITCHCAPVCC, 0x3C);**

**display.display();**

**// Clear the buffer**

**display.setTextSize(2); // Draw 2X-scale text**

**display.setTextColor(SSD1306\_WHITE);**

**display.println(F("Hi"));**

**delay(1000);**

**display.display();**

**delay(1000);**

**}**

**void loop() {**

**display.clearDisplay();**

**if (RTC.read(tm)) {**

**display.setTextSize(1); // Draw 2X-scale text**

**display.setTextColor(SSD1306\_WHITE);**

**display.setCursor(0,0);**

**display.println(tm.Hour);**

**display.setCursor(20,0);**

**display.println(F(":"));**

**display.setCursor(30,0);**

**display.println(tm.Minute);**

**display.setCursor(40,0);**

**display.println((":"));**

**display.setCursor(50,0);**

**if(tm.Second>=0 && tm.Second<=10)**

**{**

**display.println(F("0"));**

**display.setCursor(55,0);**

**display.println(tm.Second);**

**}**

**else**

**display.println(tm.Second);**

**display.setCursor(0,20);**

**display.println (tm.Month);**

**display.setCursor(20,20);**

**display.println(F("/"));**

**display.setCursor(30,20);**

**display.println (tm.Day);**

**display.setCursor(50,20);**

**display.println(F("/"));**

**display.setCursor(60,20);**

**display.println(tmYearToCalendar(tm.Year));**

**display.display();**

**delay(1000);**

**}**

**delay(1000);**

**}**