

# Real Time Clock Module

## Overview

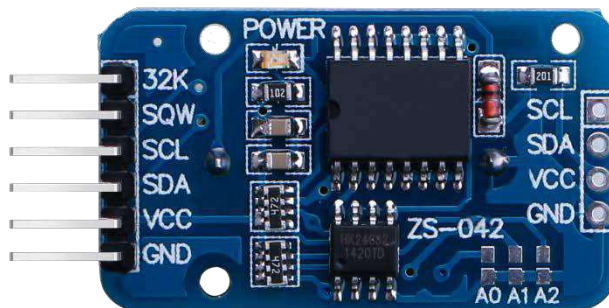
In this lesson, you will learn how to use the DS3231, clock module that displays the year, month, day, hour, minute, second and week. Support is via a backup battery trickle charger, which can be used unless being connected to MEGA2560 with only three data cables.

## Component Required:

1 x Mega2560 R3

1 x DS3231 RTC module

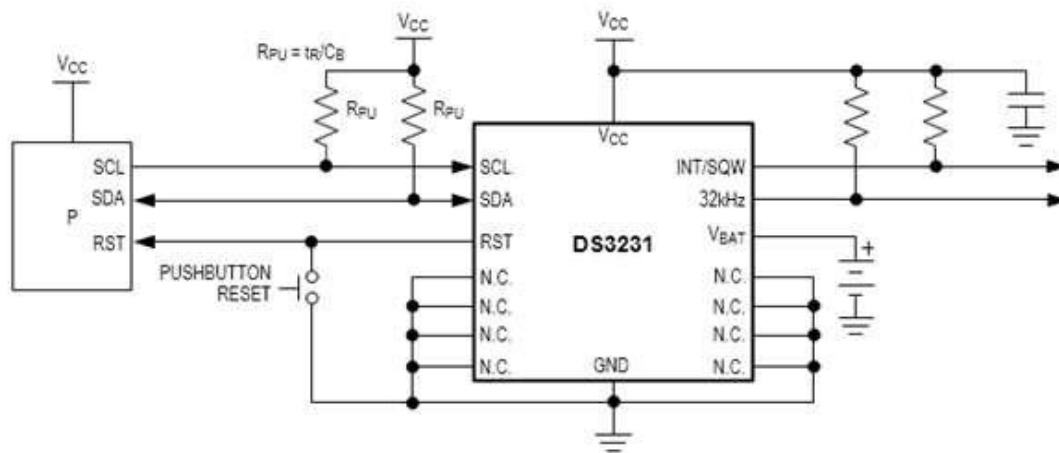
4 x F-M wires (Female to Male DuPont wires)



## Component Introduction

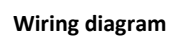
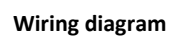
**DS3231**

The DS3231 is a simple time-keeping chip. It has an integrated battery, so the clock can continue keeping time even when unplugged.



## Connection

## Schematic



Set up according to the following image.

Ignore the 32K and SQW pins; you will not need them. Plug the SCL pin into your MEGA2560 R3 board SCL port, and the SDA pin into the SDA port. The VCC pin plugs into the 5V port, and the GND plugs into the GND port.

## Code

After wiring, please open program in the code folder- [“Real Time Clock Module”](#) and click UPLOAD to upload the program. See [“Blink”](#) for details about program uploading if there are any errors.

Before you can run this, make sure that you have installed the < DS3231 > library or re-install it, if necessary. Otherwise, your code won't work.

For details about loading the library file, see [“Arduino IDE useful manual.pdf”](#).

Open the monitor then you can see the module can read the time as below:

Click the Serial Monitor button to turn on the serial monitor. The basics about the serial monitor are introduced in details detail in [“Arduino IDE useful manual.pdf”](#).

