

## EGR-326 Prelab 5

Objective: The purpose of this laboratory is to use I<sup>2</sup>C with the MSP432 with the RTC module.

1) The charging circuit was provided with this RTC Module because if you want to connect a rechargeable battery such as a lithium-ion battery, it can be supported for mobile use.

2) The DS3231 can tell time. It can tell the time in 12 hour, AM/PM, or 24 hour time. It automatically accounts for different days, months and leap year. It can interface with a microcontroller via I<sup>2</sup>C communication protocol. ~~The~~ The DS3231 also ~~has~~ has a built-in temperature sensor.

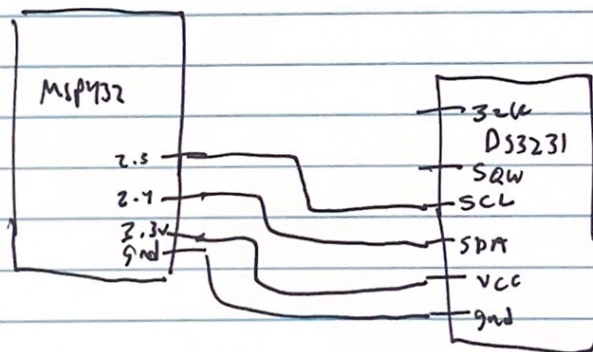


Figure 7, DS3231 & MSP432 circuit

3)

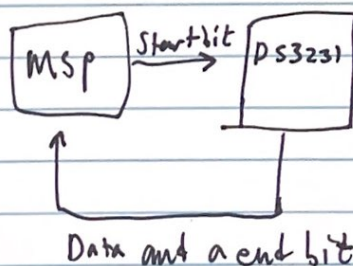


Figure 2, how the MSP will communicate with the RTC module