

Microprocessor Techniques and Embedded Systems

PROJECT PRESENTATION

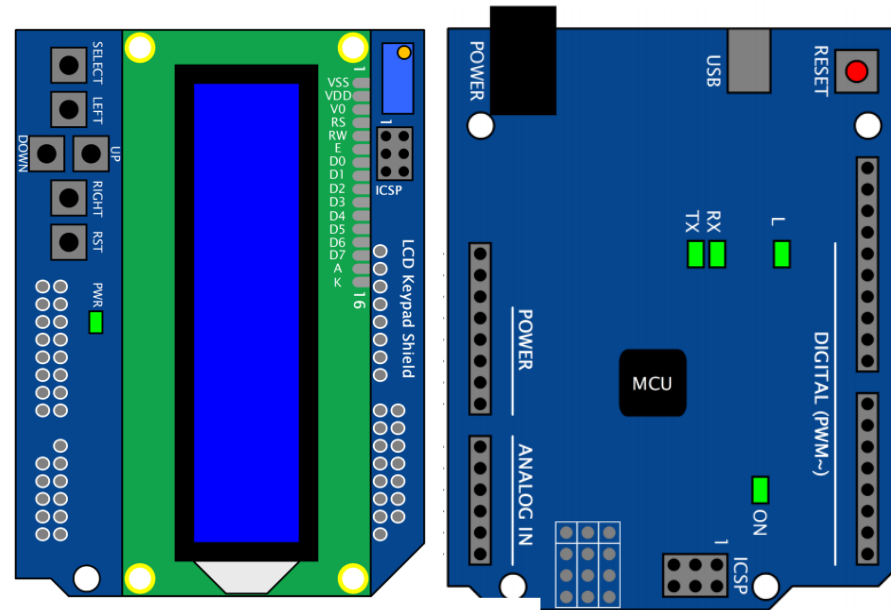
Project itself

The project goal is to make an application with:

- ▶ Time
- ▶ Date
- ▶ Alarms
- ▶ Chronometer
- ▶ Timer

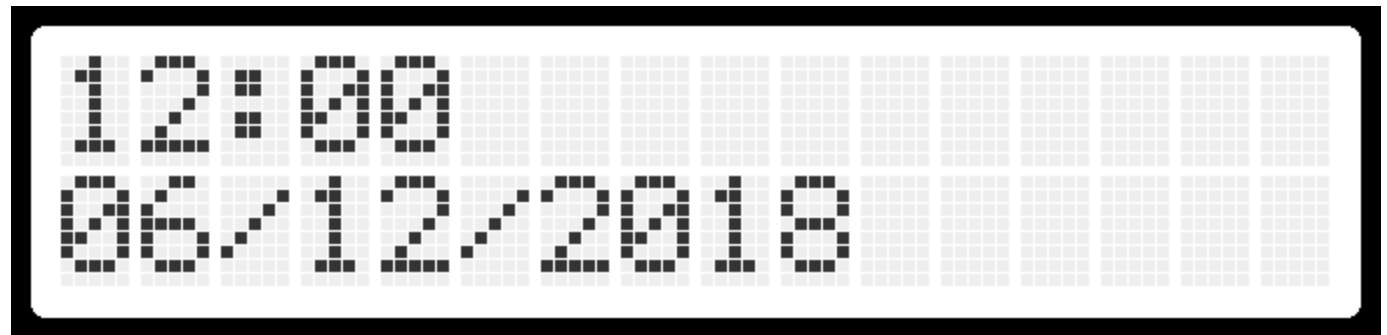
Material used

- ▶ Arduino Uno target board with ATmega328/P microcontroller
- ▶ LCD Keypad Shield
- ▶ DS3231 RTC clock

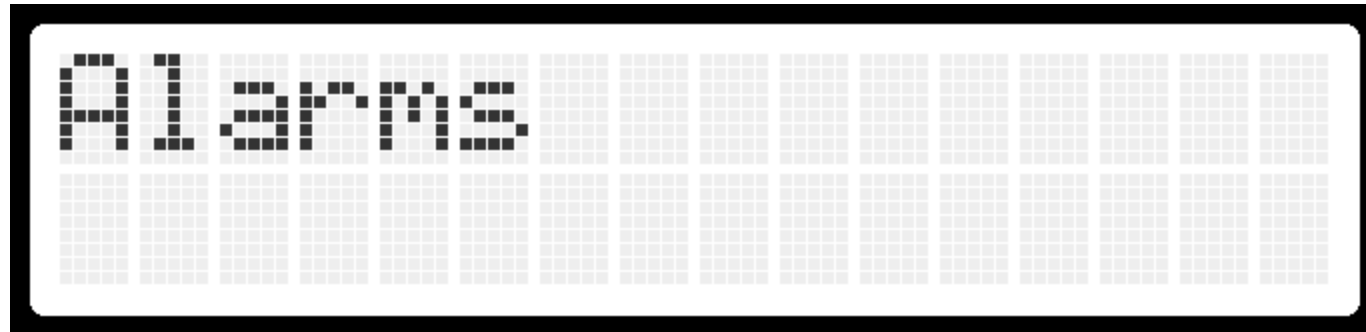


Current state of the project

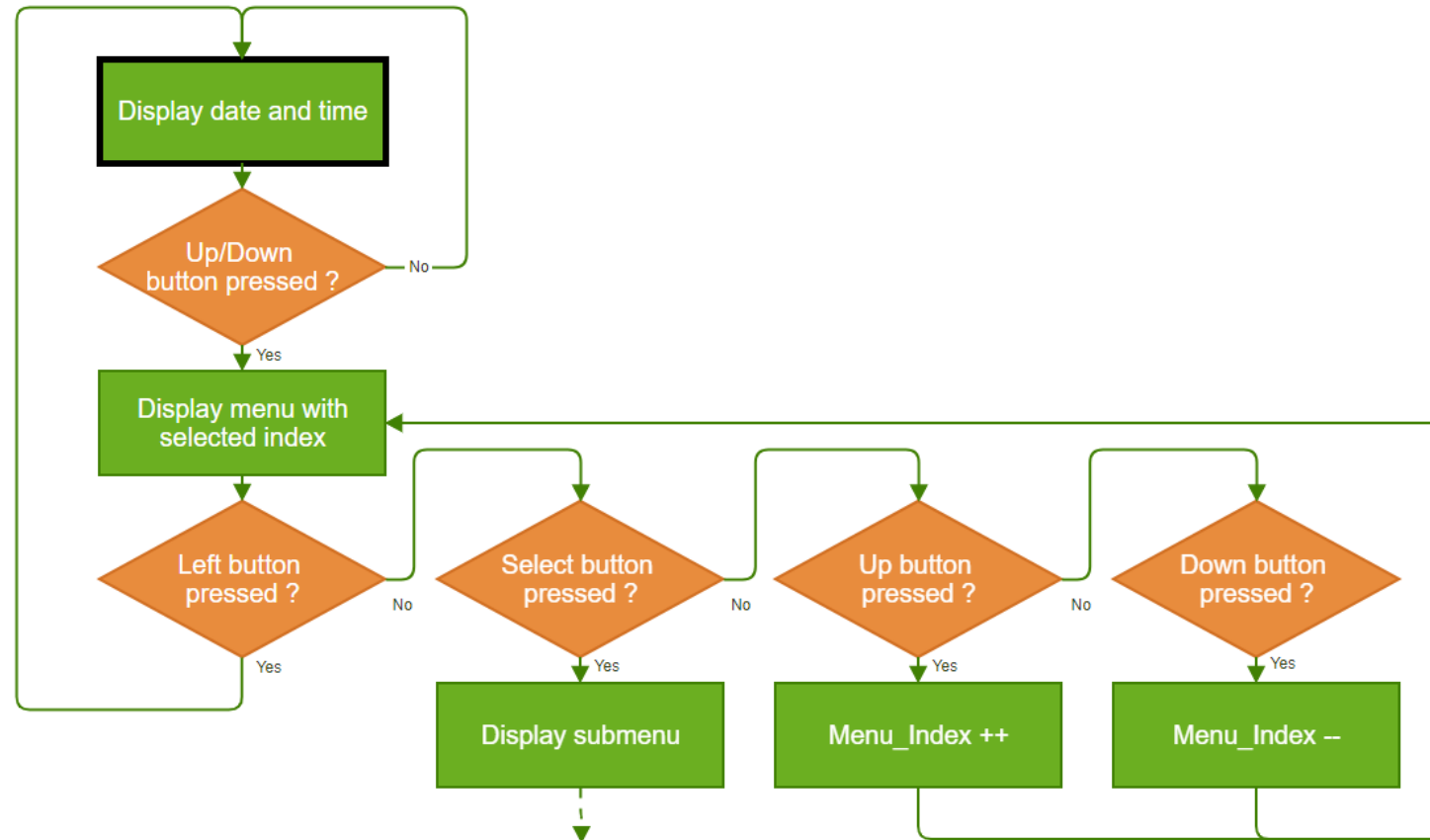
- ▶ Get and display date and time
- ▶ Interactive menu
- ▶ Set time / date



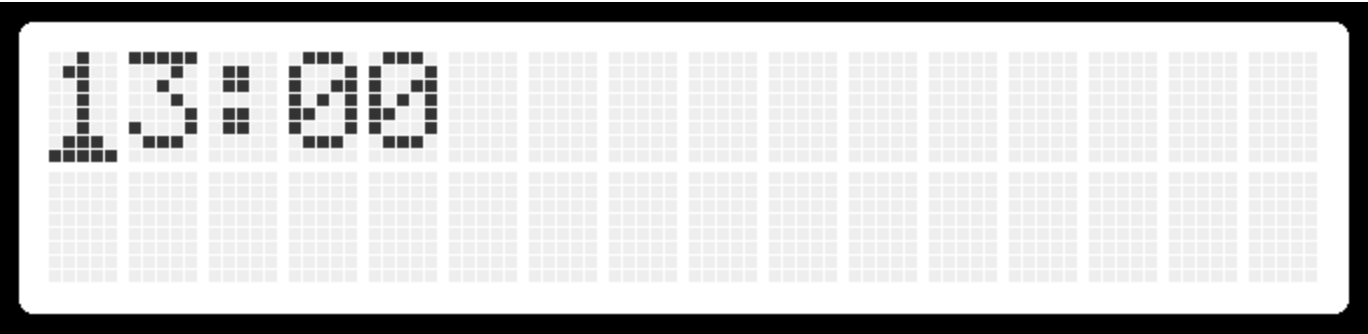
Interactive menu



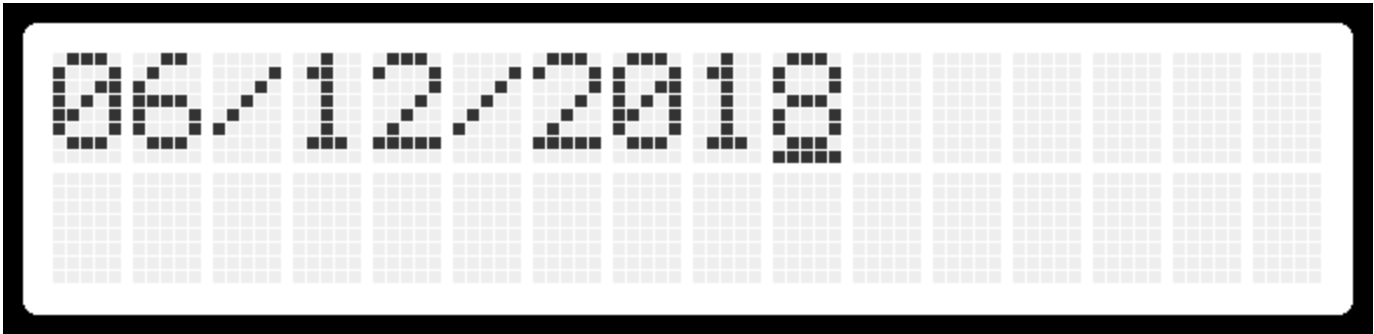
Interactive menu



Set time / date



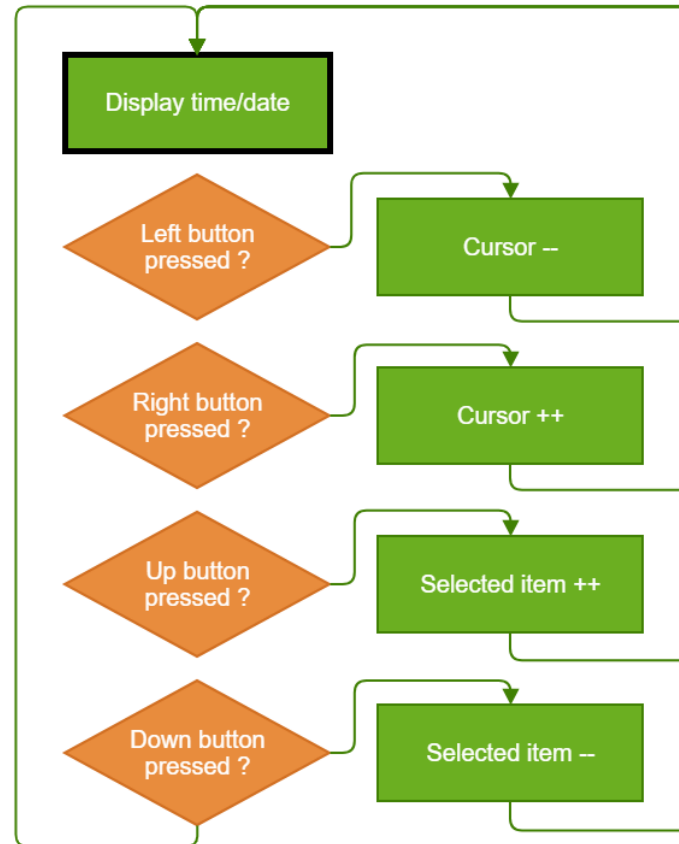
13:00

A digital display with a black border and a white background. The display shows the time 13:00 in a pixelated font. The digits are black, and the background is white with a grid of small squares. The display is divided into two rows: the top row shows '13' and the bottom row shows ':00'. The rest of the display area is empty.

06/12/2018

A digital display with a black border and a white background. The display shows the date 06/12/2018 in a pixelated font. The digits are black, and the background is white with a grid of small squares. The display is divided into two rows: the top row shows '06/12' and the bottom row shows '/2018'. The rest of the display area is empty.

Set time / date



Demo

<https://youtu.be/dkUYMvdTPwQ>

What we would like to do

- ▶ Use EEPROM to store and load date, time and alarms
- ▶ Alarms
- ▶ Chronometer
- ▶ Timer



Thanks for your attention