Design Laboratory

Project of Embedded wristwatch module powered by li-pol cell

AGH-CLK

Mateusz Bik, Mikołaj Markiel, Piotr Mosurek

18.11.2022

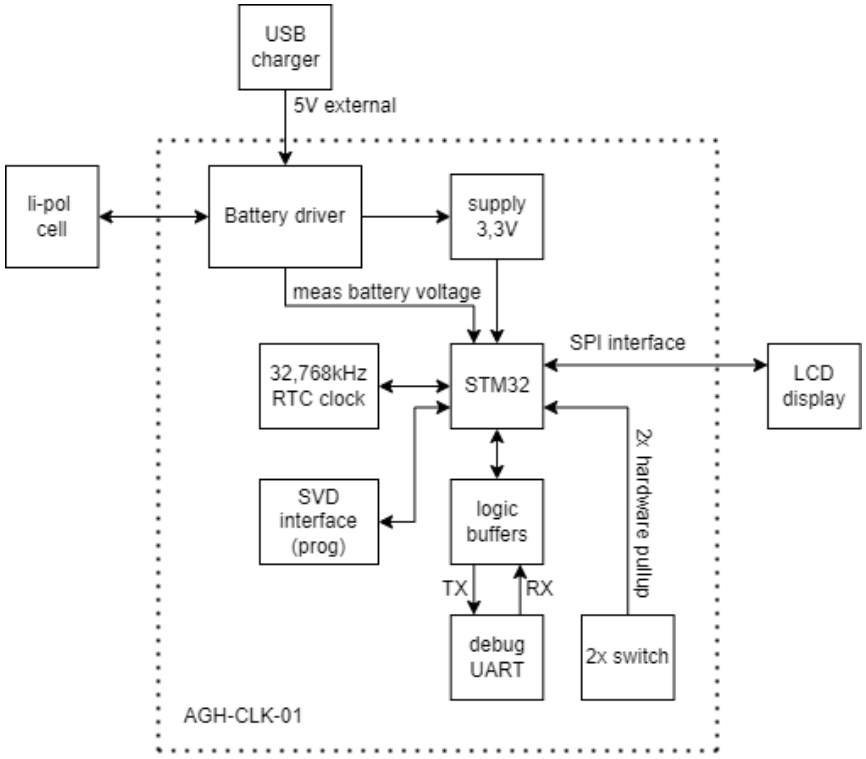
Contents page

1. Design assumptions

1.1. Project description

The main goal is to make self-contained embedded wristwatch module that could be used with dedicated wrist as a complete wristwatch. That device will have his own supply made by li-pol cell with dedicated hardware driver. As a display will be used full color LCD screen module with 240x240px and ST7789 driver. Device will be controlled by microprocessor STM32 (particular type will be pick in time) that would be placed on a dedicated printed circuit board “AGH-CLK-01” with the rest of peripherals. Everything should be assembled as a ready-to-use device.

1.2. Block diagram



1.3. Labour distribution

- **Mateusz Bik**:
  - AGH-CLK-01 hardware schematic design
  - Necessary schematic simulations
- **Piotr Mosurek**:
  - AGH-CLK-01 hardware layout design
  - Preparing bill of materials
  - Collecting parts and device montage
- **Mikołaj Markiel**:
  - AGH-CLK-01 software design
  - Functional tests, debug and improvements

2. Project schedule

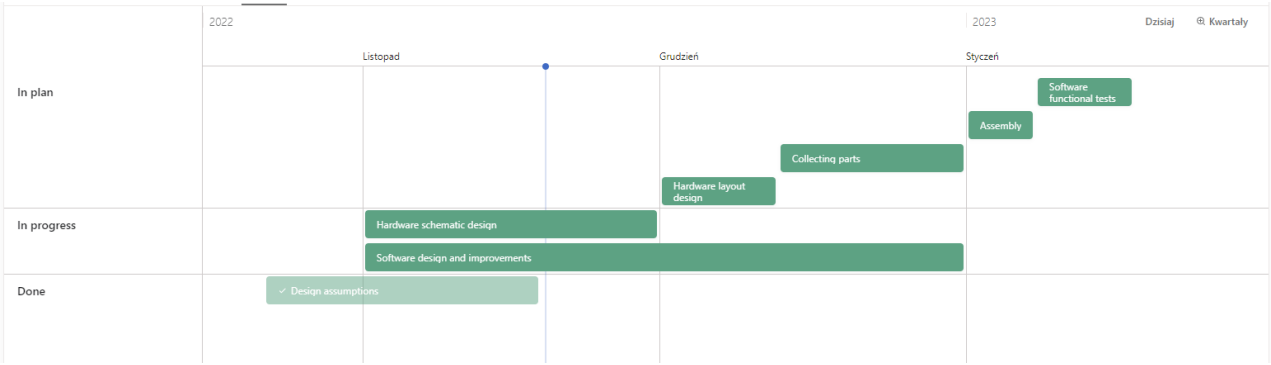


Figure 1 Project schedule has been made in Asana