MOREBAC – Quick Start Guide

All necessary files are found on Github repository https://github.com/Happsson/Morebac

Software

In order to run the program, follow these steps:

1. Install KEIL µVision (http://www2.keil.com/stmicroelectronics-stm32/mdk)
2. Double click on ../STM32-Project/MDK-ARM/Morbac.projx from github repository

To see, edit or generate new core initializations (Using HAL) in CubeMX, follow these steps:

1. Download CubeMX (http://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-configurators-and-code-generators/stm32cubemx.html?sc=stm32cubemx)
2. Open ../STM32-Project/morbac.ioc
3. To create a new setup:
    a. start new project, find the MCU (STM32L053R6)
    b. Set up as wanted
    c. Generate code (be sure to choose toolchain “MDK-ARM V5” in settings)

To run processing code, follow these steps

1. Download processing (processing.org)
2. Open /processing/morebac/morebac.pde
3. Connect USB with RS232 cable (http://www.lawicel-shop.se/prod/TTL-232R-USB-5V-cable-33V-IO_794885/Sparkfun_64668/SWE/SEK) to USART, according to figure 1.

Hardware

To download and execute new code on the MCU, follow these steps:

1. Connect to STM32-Discovery board with ST-link debugger, capable of programming over SWD.
2. Connect SWD port to PCB according to figure 1.
3. Download program from Kiel to PCB

PCB and schematics are made with DipTrace (http://diptrace.com/).
To edit schematics, open /diptrace/morebac.dch
To edit PCB design, open /diptrace/morebac.dip

Note that the USER LED (see figure 1), is connected to GPIO PB12.

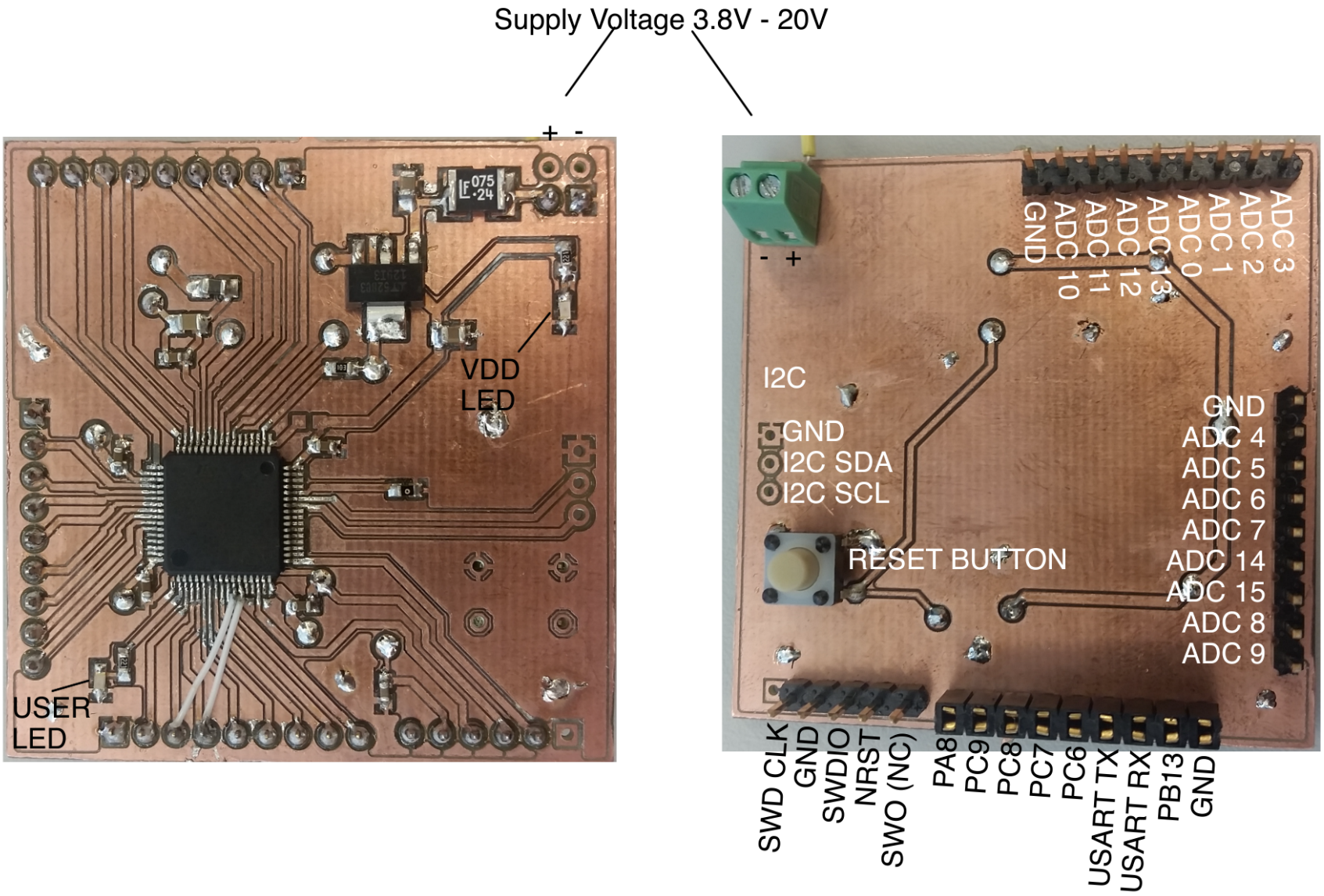

Figure 1 - ports on PCB