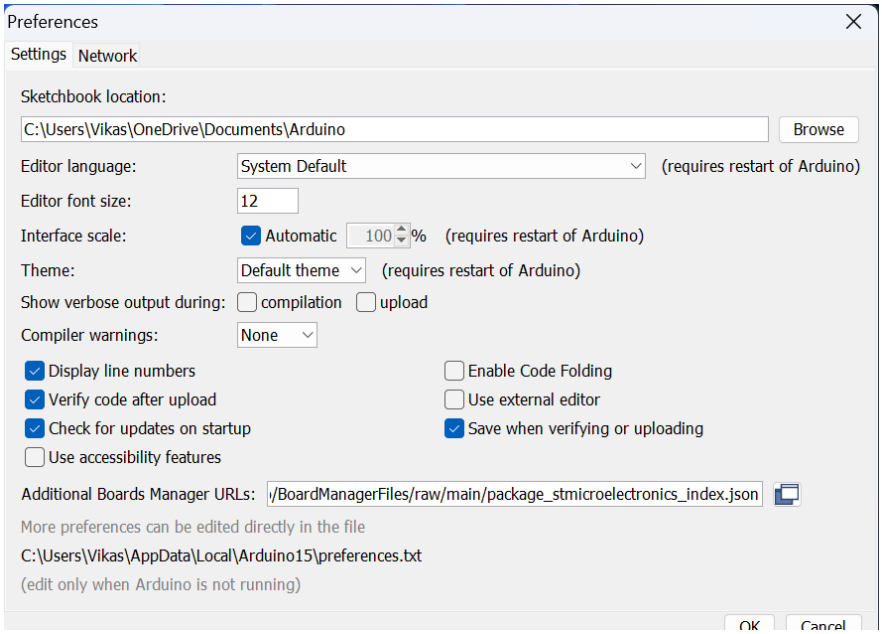
Environment Setup

KBDV0.2

IDE: Arduino 1.8.19

Setup:

1. Open Arduino IDE ->File->Preferences



2. Add to additional Boards Manager URLs:
   http://dan.drown.org/stm32duino/package_STM32duino_index.json
   https://github.com/stm32duino/BoardManagerFiles/raw/master/STM32/package_stm_index.json
   https://github.com/stm32duino/BoardManagerFiles/raw/main/package_stmicroelectronics_index.json

   Press Ok. Wait for Download to complete. Restart.

3. Tools->Boards->Generic STM32F103R
4. Tools->Variant->STM32F103RB
5. Tools->Speed->48Mhz(with USB)
6. Tools->Upload Method-> STLink

Note: We have used STLink V2 for programming the chip. You can use any method of your choice.

For that you can compile binary from Arduino and use that binary file to flash.

Schematic and Layout

We have used Eagle 9.6.2 to create schematic, layout and gerber generation.

Files attached are V0.2 and V0.3

V0.2 is the version you have as prototype.

V0.3 is the upgraded version with programming connector.