## **Environment Setup**

KBDV0.2

IDE: Arduino 1.8.19

Setup:

1. Open Arduino IDE ->File->Preferences

Preferences			×
Settings Network			
Sketchbook location:			
C:\Users\Vikas\OneDrive\Doc	uments\Arduino		Browse
Editor language:	System Default	~	(requires restart of Arduino)
Editor font size:	12		
Interface scale:	✓ Automatic 100 🕏 %	(requires restart of Arduino)	
Theme:	Default theme (requires restart of Arduino)		
Show verbose output during:	compilation upload		
Compiler warnings:	None ~		
Display line numbers		Enable Code Folding	
✓ Verify code after upload		Use external editor	
Check for updates on start	ир	Save when verifying or up	loading
Use accessibility features			
Additional Boards Manager UF	Ls: /BoardManagerFiles/rav	v/main/package_stmicroelectro	nics_index.json
More preferences can be edite	d directly in the file		
C:\Users\Vikas\AppData\Local	\Arduino15\preferences.txt		
(edit only when Arduino is no	t running)		
			OK Cancel

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.jso n

https://github.com/stm32duino/BoardManagerFiles/raw/main/package\_stmicroelectronics\_inde\_x.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.