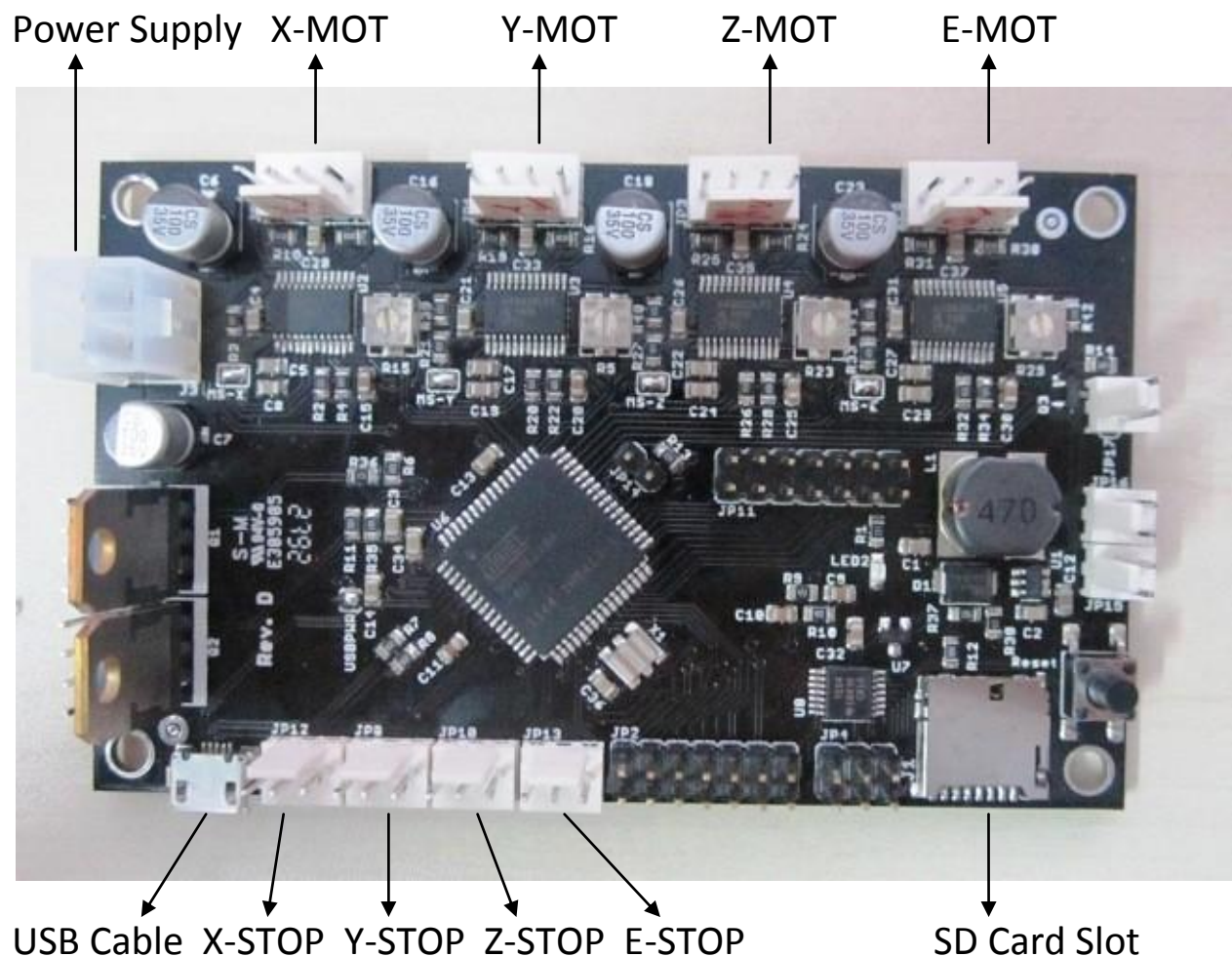# Steps To Be Followed While Using **<u>Printrboard Electronics</u>**

1. Check Whether all the connections made on Printrboard Board are Proper.

Power Supply X-MOT   Y-MOT   Z-MOT   E-MOT

USB Cable X-STOP Y-STOP Z-STOP E-STOP   SD Card Slot

2. The Printrboard Board comes ready-to-print with **Marlin RC2 Firmware** and **LUFA CDC BootLoader** already installed .

Available on our site in Download Section

Marlin RC2 Firmware :

https://docs.google.com/file/d/0B1RdPt7CiTgbOXlySE9vZnJURU0/edit

LUFA CDC BootLoader :

https://docs.google.com/file/d/0B1RdPt7CiTgbbWc4SkJWRmZHalE/edit

3. Install **PronterFace** Software (It is With **Slic3r**)

Available on our site under Download Section:

https://docs.google.com/file/d/0B1RdPt7CiTgbMzJTMlEtV1JobU0/edit

Common Configuration Modifications:

The configuration of the firmware is controlled by defines in
configuration.h
- **Set** the Baud rate **250000.**
- If one of your axes goes in the wrong direction toggle
  INVERT_X_DIR (substitute Y, Z as needed) by changing it from
  True to False (or back).

4. Once this is working fine, you can load an **STL file** and **print** your
object

Compiling new Firmware:

1. Install **Arduino For Printrboard.**
Available on our site in Download Section:
https://docs.google.com/file/d/0B1RdPt7CiTgbWThBcmlBcHBtZDg/edit

2. Compile, Fix compile errors (Make sure you select printrboard from
the tools>boards dropdown).

3. Plug in the Printrboard and power it up, wait for your computer to detect the board.

4. Select the proper COM port for the Printrboard in the Arduino software.

5. Upload the Firmware.

6. Close the Arduino software.

7.Hit the reset button on the Printrboard.

Installing **LUFA CDC BootLoader**.

Note : Already Installed. Mentioned Just for Reference.

1. Download Complied LUFA CDC BootLoader
   Available on our site under Download Section :
   https://docs.google.com/a/softtact.com/file/d/0B1RdPt7CiTgbbWc4SkJWRmZHalE/edit
2. Remove Boot Jumper from the Printrboard and Press Reset Button.
3. Connect 6 pin USBTiny Programmer to Printerboard's ICSP Header. (Note: Pin 1 (Red Wire) Closest to SD card Slot.)
4. Connect USBTiny's Cable to PC.
5. Run the following avrdude Commands:

```
A. avrdude -c usbtiny -p at90usb1286 -U lfuse:w:0xDE:m -U
   hfuse:w:0x9B:m -U efuse:w:0xF0:m
B. avrdude -c usbtiny -p at90usb1286 -U
   flash:w:BootloaderNAME_HERE.hex:i
```

> Note : at NAME_HERE.hex write name of BootLoader File to be install

6. Replace Jumper on the Printrboard and Press Reset again.