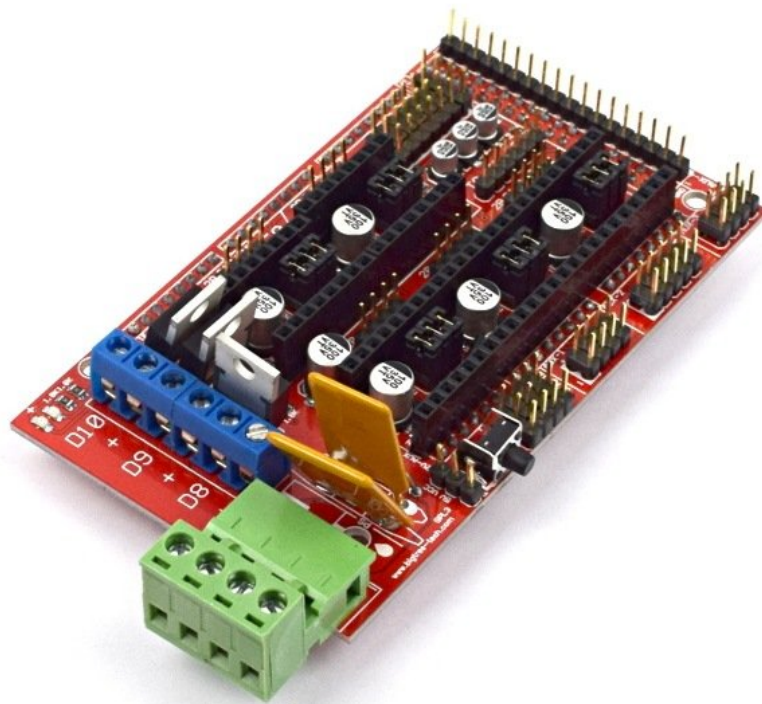


# Voron Design

## Updating MCU Definitions

Written By: insurgus



## Step 1 — MCU Definitions (X/Y/E)

```
pi@voron-2023:~ $ ls /dev/serial/by-id  
Arduino__www.arduino.cc__0042_55737313631351601271-if00
```

- Your machine should be powered up, with the controllers disconnected from the Raspberry Pi.
- Connect the X/Y/E to the Raspberry Pi
- Open an SSH terminal, and issue the following command **ls /dev/serial/by-id/**
- Copy this line to notepad on your PC. Make sure to note somewhere that this is the X/Y/E MCU.

## Step 2 — MCU Definitions (Z)

```
pi@voron-2023:~ $ ls /dev/serial/by-id  
Arduino__www.arduino.cc__0042_55737313631351601271-if00  
Arduino__www.arduino.cc__0042_55737313631351603928-if00
```

- Plug in the Z controller to the Raspberry Pi.
- Issue a command in your SSH terminal, ls **/dev/serial/by-id/**
- Note the new ID that shows up. You will also see your X/Y/E controller show up.
- Copy this new ID to your notepad, and note that it is the Z controller.

### Step 3 — Updating X/Y/E MCU Definition

```
[mcu]
# Mcu for X/Y/E steppers
serial: /dev/serial/by-id/**INSERT_YOUR_ARDUINO_DEFINITION_HERE**
# Obtain definition by "ls -l /dev/serial/by-id/"
# Some Arduinos clones (CH340) may require using "ls -l /dev/serial/by-path/"
pin_map: arduino
restart_method: arduino
```

- Open your **printer.cfg** file in whatever editor you feel comfortable with. My preference is to use **nano** via a **SSH terminal**, but if you prefer to use WinSCP you're welcome to do so.
- In the section **[mcu]** on the line starting "serial:", copy the path you copied to your notepad for the X/Y/E controller.
- Be sure you have the whole path as outputted by the terminal. It requires **/dev/serial/by-id/** at the start.

### Step 4 — Updating Z MCU Definition

```
[mcu z]
# Mcu for Z steppers
serial: /dev/serial/by-id/**INSERT_YOUR_ARDUINO_DEFINITION_HERE**
# Obtain definition by "ls -l /dev/serial/by-id/"
# Some Arduinos clones (CH340) may require using "ls -l /dev/serial/by-path/"
pin_map: arduino
restart_method: arduino
```

- In the section **[mcu z]** on the line starting "serial:", copy the path you copied to your notepad for the X/Y/E controller.
- Be sure you have the whole path as outputted by the terminal. It requires **/dev/serial/by-id/** at the start.

## Step 5 — Restart Klipper



- In your SSH terminal, issue command **sudo service klipper restart**