**V1** features**:**

* **High-side** **current** and **voltage** sense use high voltage **INA149** difference amplifiers
* **ESP32** based control system
* **16** x **MJ15024** power transistors act as the load
* 5V base driver capable of **5A** driven via both channels of the ESP32 **DAC**
* **Overcurrent** and **Overvoltage** protection
* 4x indicator **LEDs**
* Requires **3.3V**, **5V** and **±12V**

**V2** proposed changes:

* **STM32** based control system.
* Switchable current range from **10A** to **100A**
* **User interface** (display, LEDs, potentiometers, switches, buzzer, etc…)
* Reduction in number of **MJ15024** transistors from **16** -> **8**
* More optimised and **efficient** **base driver**
* 12V **fans** controlled with **PWM** driven via MOSFETs controlled by the **MCU**
* Support for a large ( **>8** ) amount of **multiplexed thermistors**