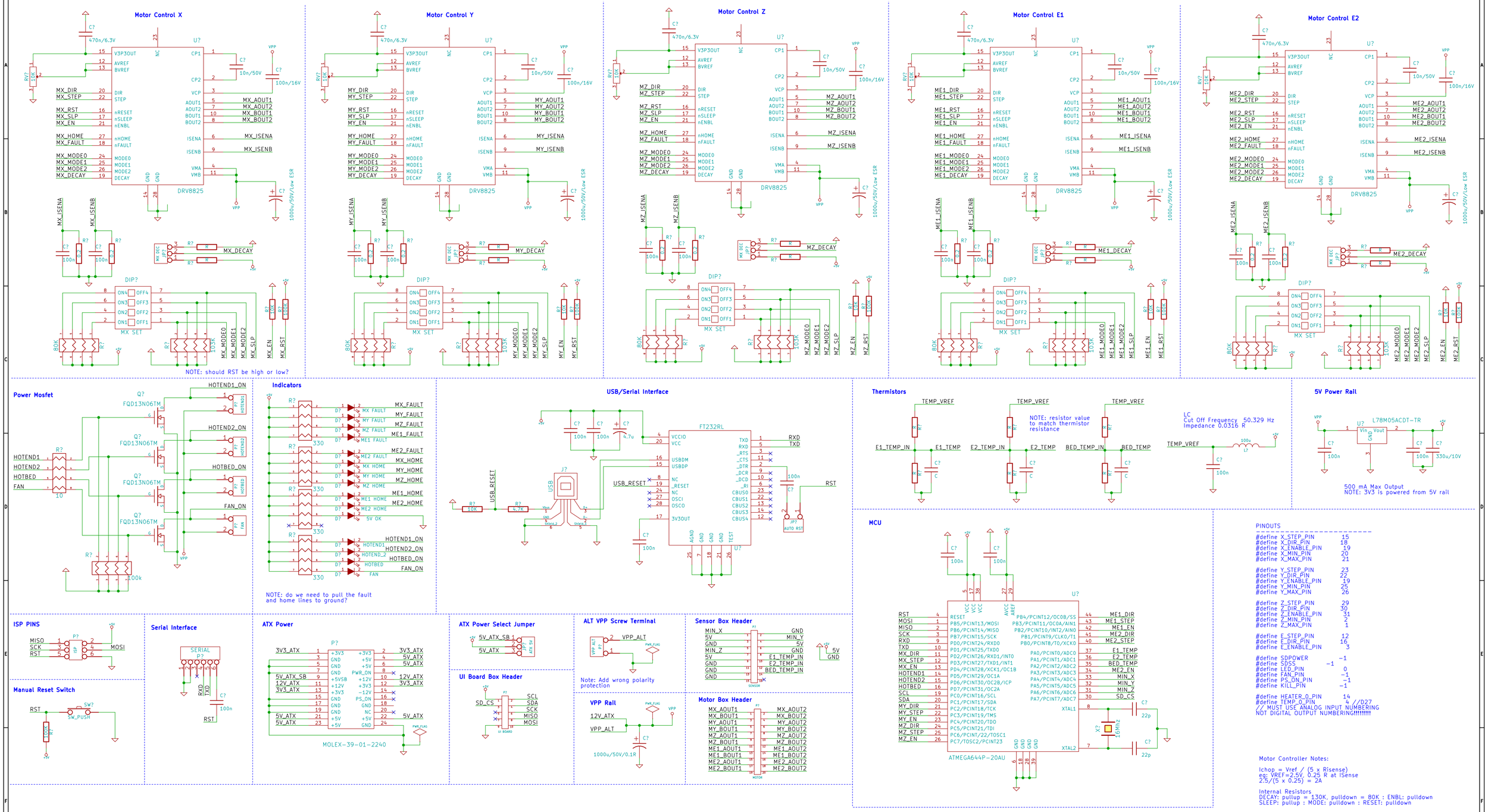


PINOUTS

```
#define X_STEP_PIN        15
#define X_DIR_PIN         18
#define X_ENABLE_PIN      19
#define X_MIN_PIN         20
#define X_MAX_PIN         21

#define Y_STEP_PIN        23
#define Y_DIR_PIN         22
#define Y_ENABLE_PIN      19
#define Y_MIN_PIN         25
#define Y_MAX_PIN         26

#define Z_STEP_PIN        29
#define Z_DIR_PIN         30
#define Z_ENABLE_PIN      31
#define Z_MIN_PIN          2
#define Z_MAX_PIN          1

#define E_STEP_PIN        12
#define E_DIR_PIN         16
#define E_ENABLE_PIN       3

#define SDPOWER          -1
#define SDSS          -1
#define LED_PIN            0
#define FAN_PIN           -1
#define PS_ON_PIN         -1
#define KILL_PIN          -1

#define HEATER_0_PIN      14
#define TEMP_0_PIN         4 //D27
// MUST USE ANALOG INPUT NUMBERING
NOT DIGITAL OUTPUT NUMBERING!!!!!!!
```

Motor Controller Notes:

Ichop = Vref / (5 x Risense)
eg: VREF=2.5V, 0.25 R at ISense
2.5/(5 x 0.25) = 2A

Internal Resistors
DECAY: pullup = 130K, pulldown = 80K : ENBL: pulldown
SLEEP: pullup : MODE: pulldown : RESET: pulldown

TODO

- Varistor needed on VREF of controller ICs
- I2C Port Expander PCF8574
- Add Buzzer
- Move UI stuff to second board
- Rotary encoder or 3x4 Keypad??
- EEPROM

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