FAZE4 Robotic arm electronics setup

So this is wiring guide for my setup of the arm. If you plan to build Faze4 robotic arm it might not look like this. Your wires might have different colour coding, different steppers…
So here i am going to explain some general tips.

- Microsteps for motors should be kept like ones in tables. If you change them change microstep values in software to.
- Adjust Peak current for your steppers. I used peak value of stepper drivers but actually we use RMS value of current so **adjust to your RMS current!**
- Voltage your stepper motor is rated
- Limit switch dir tells us what state needs to be on stepper driver DIR pin to initiate movement in DIRECTION TO HIT A LIMIT SWITCH ! This is really important! These values should be left as they are in this table. If you see your stepper is moving away from limit switch just switch any 2 wires of the same phase on stepper driver and that will change the direction. You can change it in software too but this method is easier.
- ENABLE tells us what state on enable pin of stepper drivers ENABLES the driver.
- Wires for my setup and Control pins are specific for my build of the arm.

ROBOT electronics setup

JOINT 6

Microstep	Current	Voltage	Limit switch DIR	ENABLE
400	PK 0.7A	24V	LOW	LOW

Wires for my setup: red,green,blue,yellow (A+,A-,B+,B-)
Control pins: GND,ENA+,GND,DIR+,PULS+

JOINT 5

Microstep	Current	Voltage	Limit switch DIR	ENABLE
400	PK 1.2A	24V	HIGH	ANALOG: 0

Wires for my setup: red,blue,green,black (A+,A-,B+,B-)
Control pins: GND,PULS+,GND,DIR+,ENA+

JOINT 4

Microstep	Current	Voltage	Limit switch DIR	ENABLE
400	PK 1.2A	24V	HIGH	ANALOG: 0

Wires for my setup: red,blue,black,green (A+,A-,B+,B-)
Control pins: GND,ENA+,GND,DIR+,PULS+

JOINT 3

Microstep	Current	Voltage	Limit switch DIR	ENABLE
400	PK 2.2A	24V	HIGH	LOW

Wires for my setup: red,blue,black,green (A+,A-,B+,B-)
Control pins: GND,ENA+,GND,DIR+,PULS+

JOINT 2

Microstep	Current	Voltage	Limit switch DIR	ENABLE
1600	PK 2.7A	36V	HIGH	LOW

Wires for my setup: red,yellow,orange,purple (B-,B+,A-,A+)
Control pins: PULS+,GND,DIR+,GND,ENA+

JOINT 1

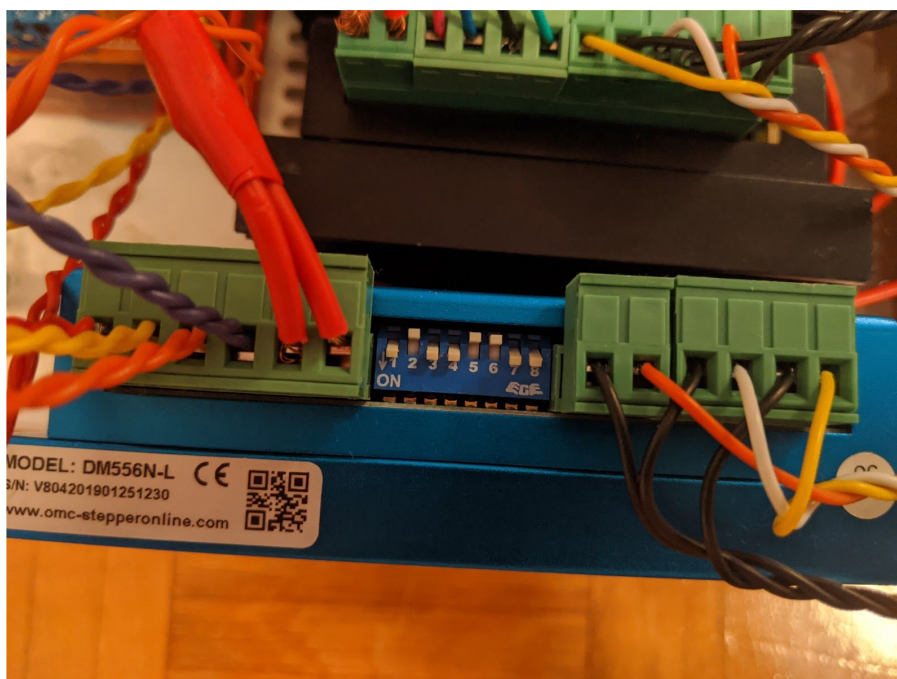| Microstep	Current	Voltage	Limit switch DIR	ENABLE
1600	PK 2.7A	24V	HIGH	LOW

Wires for my setup: red,blue,black,green (A+,A-,B+,B-)
Control pins: GND,ENA+,GND,DIR+,GND,PULS+

Switches for Joint 1,3,4,5,6

Switches for Joint 2