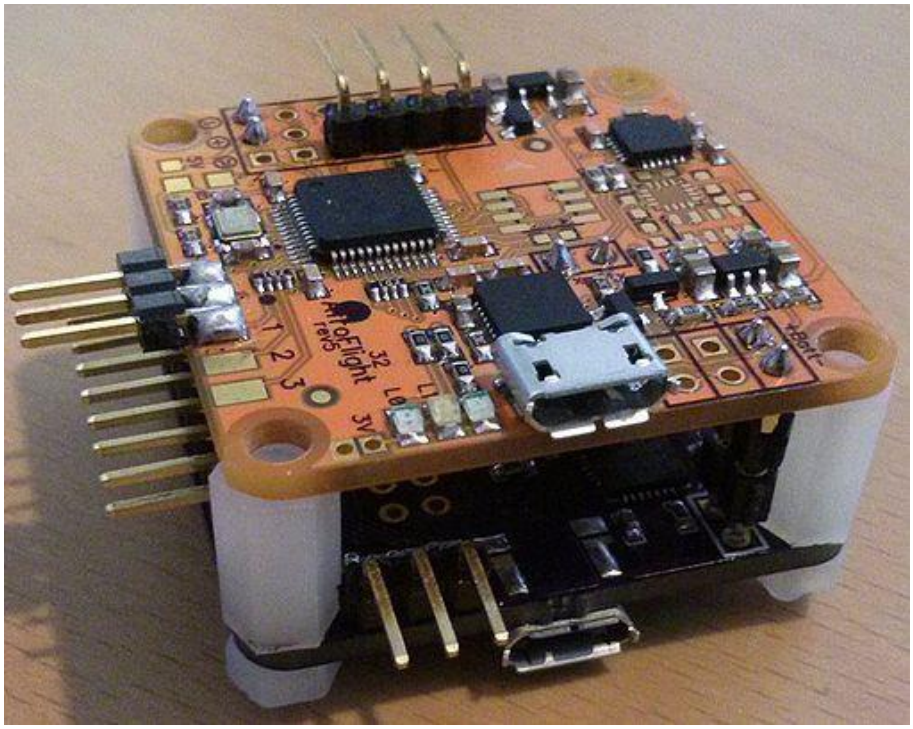
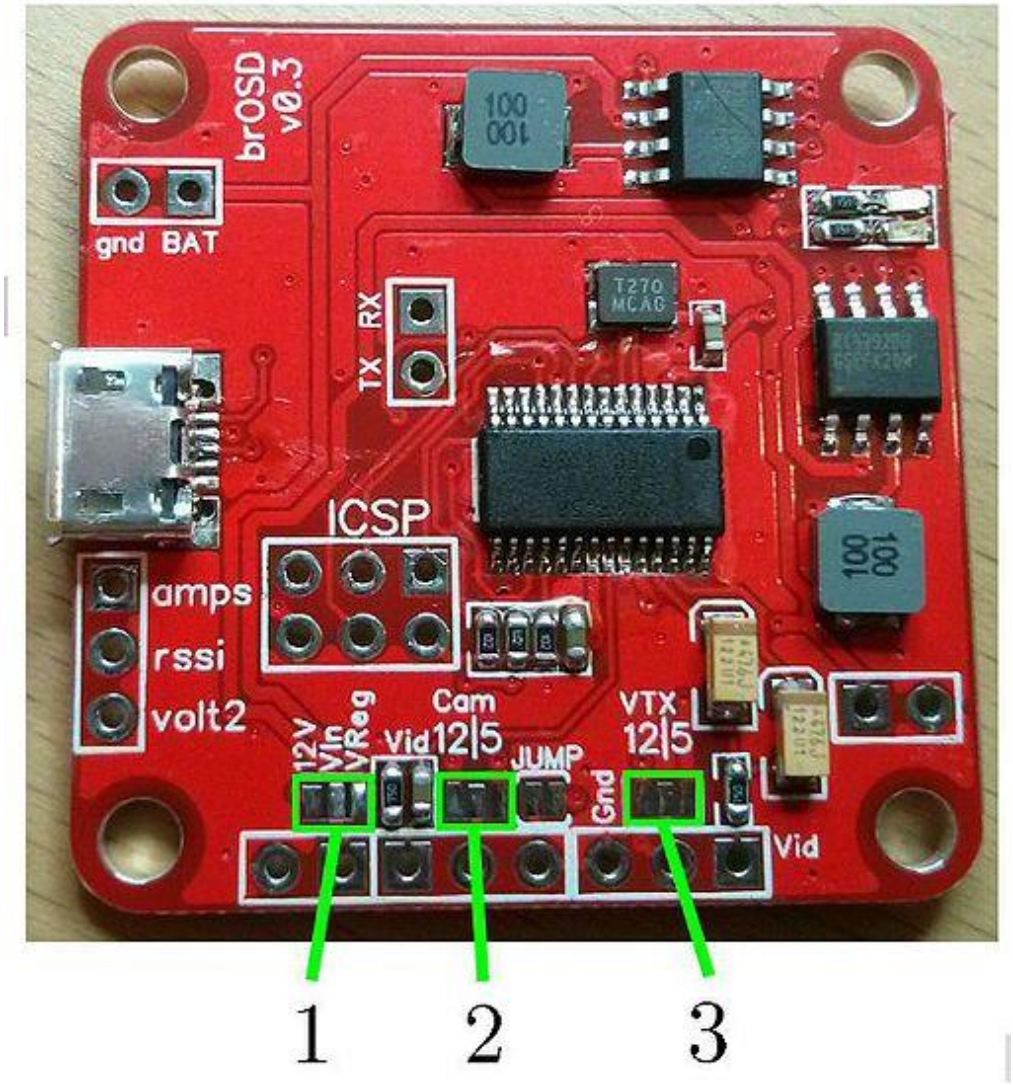


When the OSD and Swift/Naze flight controller are stacked together, the stack looks like this. 10mm standoffs are used.

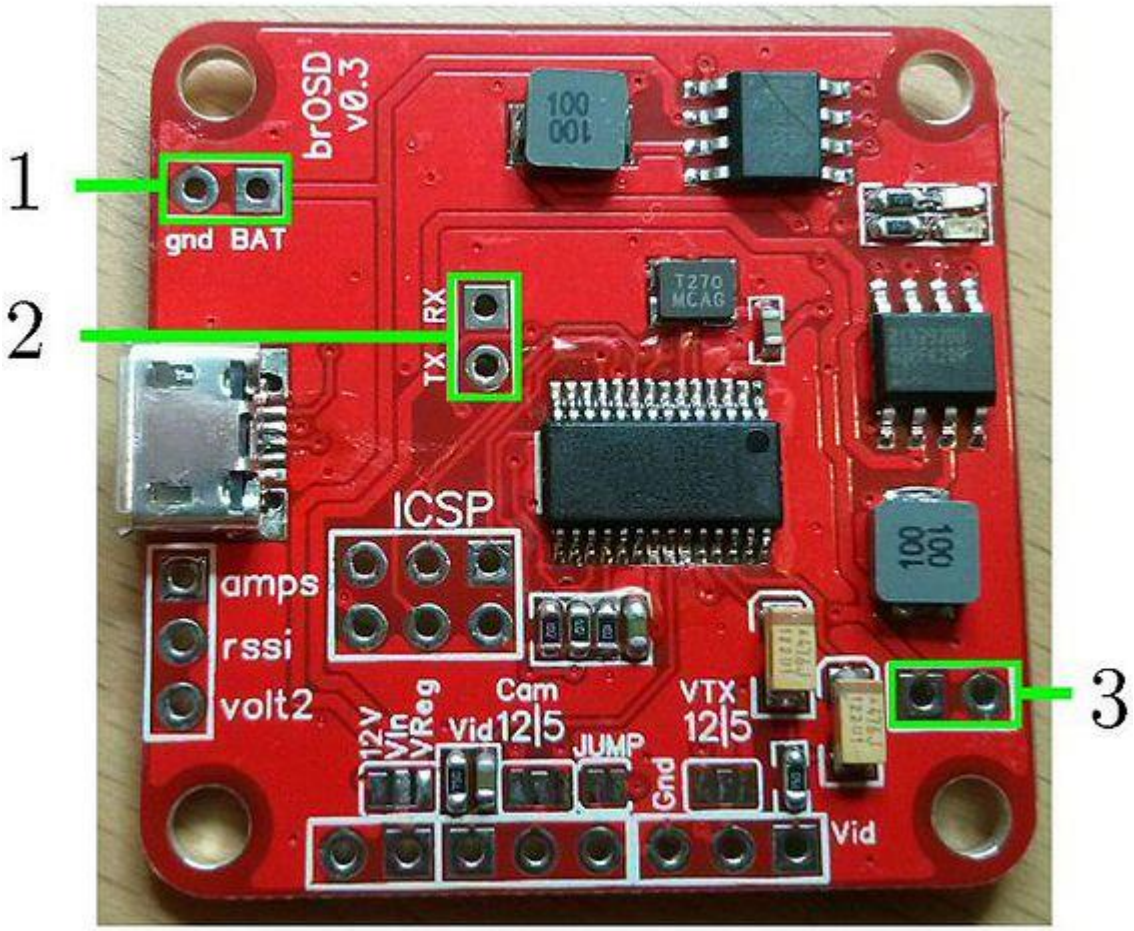


Solder jumpers

There are many ways to set up the power routing depending on how you want to power your aircraft. The power settings on brOSD are very versatile. You can power the naze and anything attached to its 5V rail. You can power your 5V or 12V camera and VTX from 3S or 4S. brOSD is designed to take power directly from the battery.

These solder jumpers are set during testing and may not match the settings you need. Make sure to check and set them before connecting something that can blow up!!!

1) This jumper determines where the 12V rail gets its power from. If you have a 3S battery, set this jumper so Vin and 12V are shorted. This will connect the 12V rail directly to the battery. If you have a 4S battery, set this jumper so Vin and Vreg are shorted. The 12V onboard regulator will be powered from the battery, and step down battery voltage to 12V for use with your camera or VTX.
2) Set camera power to 12V or 5V with this solder jumper.
3)Set VTX power to 12V or 5V with this solder jumper.

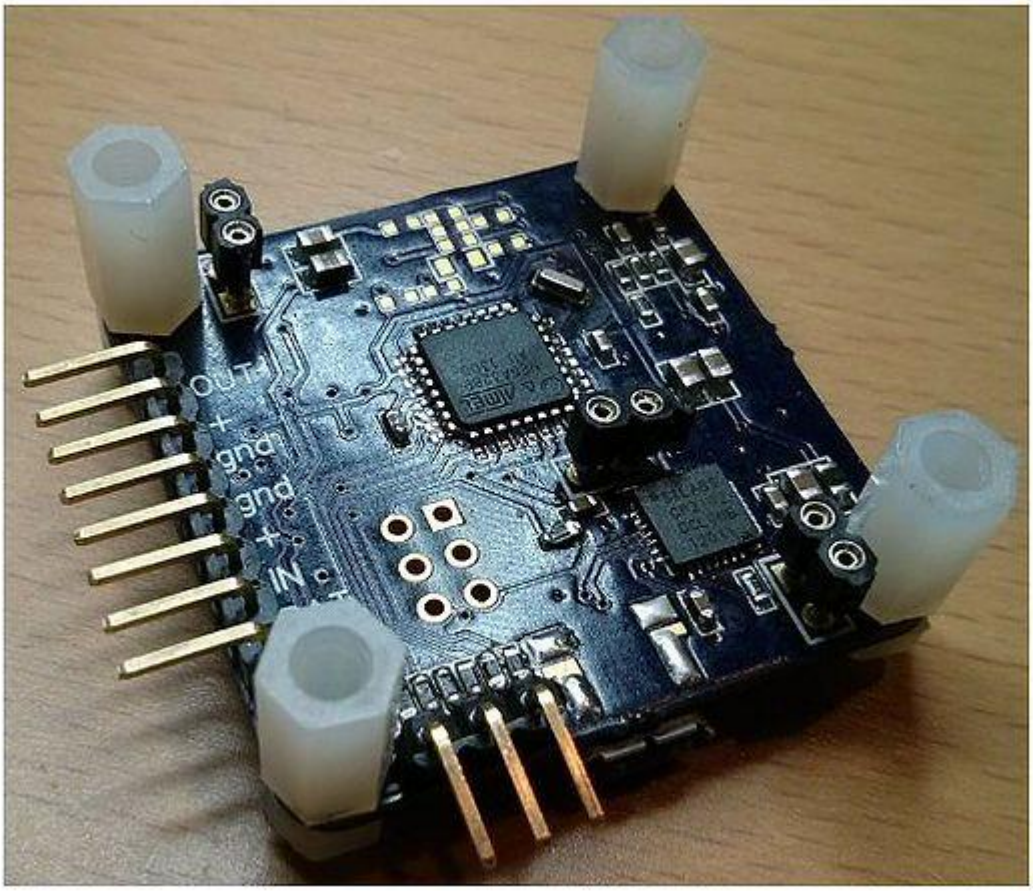


Swift/Naze stacking connections

These pins are available to connect to the flight controller.
1) This connection will bring battery voltage to the VBAT sensor on the FC, for use with voltage sensing or the buzzer. There is also a ground connection here.

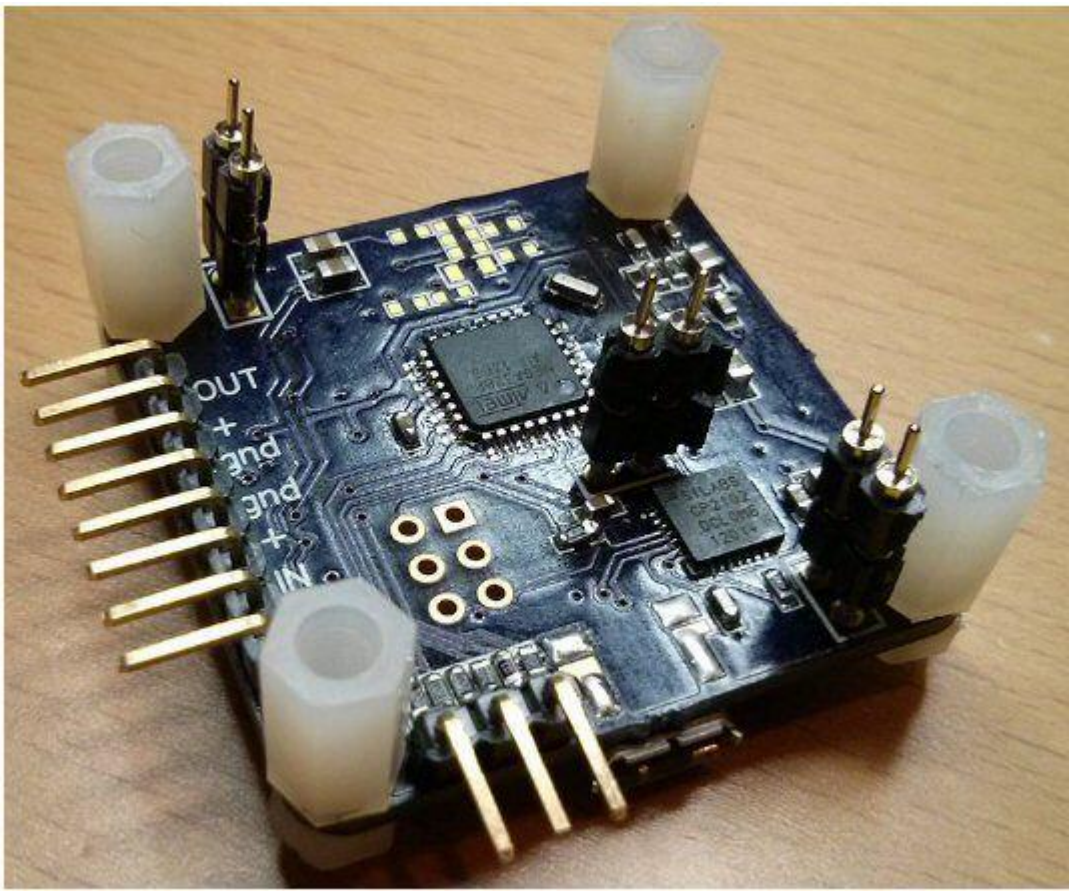
2) This is the serial connection required to talk to the FC. You must connect these two pins to the FC along with at least one ground. The ground doesn't have to be one of the grounds in 1 or 3, but there must be a ground routing somewhere on the aircraft.

3) These pins connect the 5V and ground on brOSD to the channel 6 servo pin header 5V and ground lines on the naze. You can power the FC and anything attached to it by connecting these pins. Yes, that means that you don't have to use your ESC's BEC, and in fact in this case, you must disconnect the ESC BEC's 5V line. Note that you can also probably disconnect the ESC's ground line and just run the PWM signal up to the naze, saving considerable wiring mess.

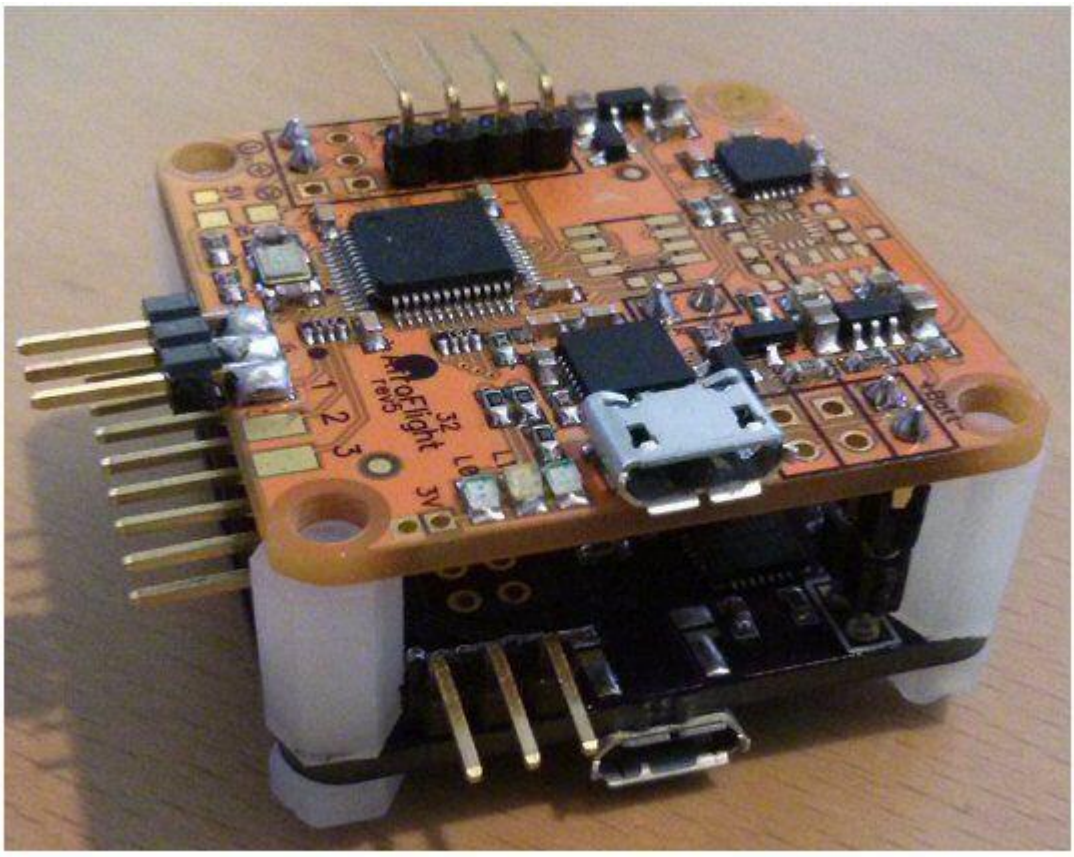


Recommended way to solder stacking connections

Firstly, place the female headers you want to use into the back side of brOSD. Don't solder anything yet.

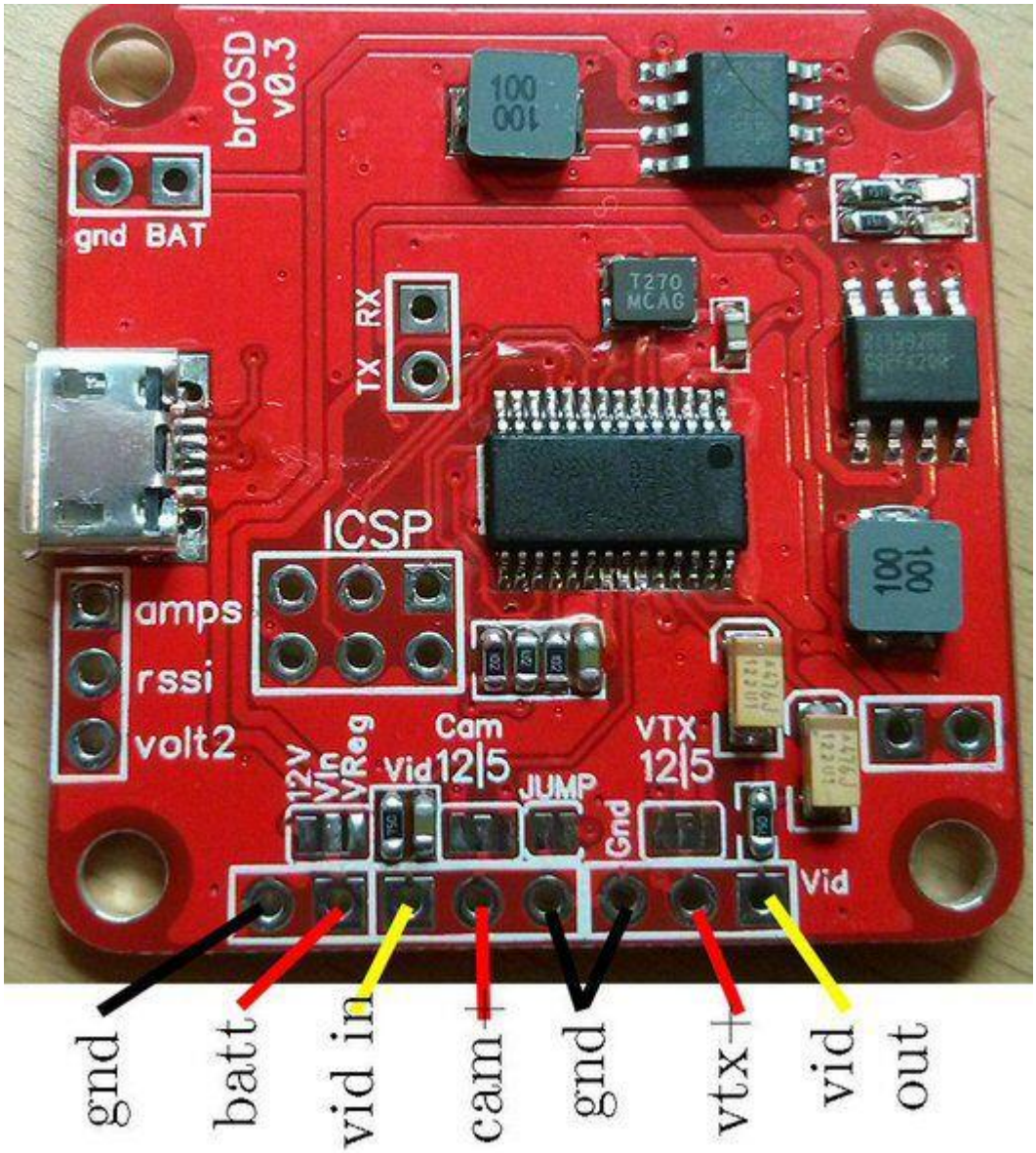


Next, place the male headers into the female headers.



Place the naze on top and fasten the standoffs. Ensure the pins poke into the holes on the naze. The pins should not be able to come out and should be trapped between the two boards. The two boards are aligned correctly when the USB plugs face the same direction and are on the "outside" of the sandwich.

Then, solder all the stacking connections. This way, the headers will line up perfectly and you can remove and replace the brOSD easily.



Power and Video Connections

Connections are provided for:

- Battery and ground
- Camera video, power and ground
- VTX video, power and ground