

# How to Assemble a Drone

The first step in this assembly project is to have all the parts needed. Make sure that you get comprehensive list of necessary parts.

For example, the MassiveRC ZMR 250, and the Naze32 flight controller are being used for this project.

The first step in the assembly process is to solder the connections and the voltage regulator to the ZMR 250 PDB. Please follow the link below for more detailed PDB assembly. Steps are provided in the link below:

<http://www.rcgroups.com/forums/showthread.php?t=2472185>

Below is a picture of the frame:



Below is a picture of the PDB Power Distribution Board)



The next step is to mount the motors. For this project the EMAX MT 2204 motors were selected. For this application, be sure to use the nyloc nuts. Mount each motor in the center of the X-slots.

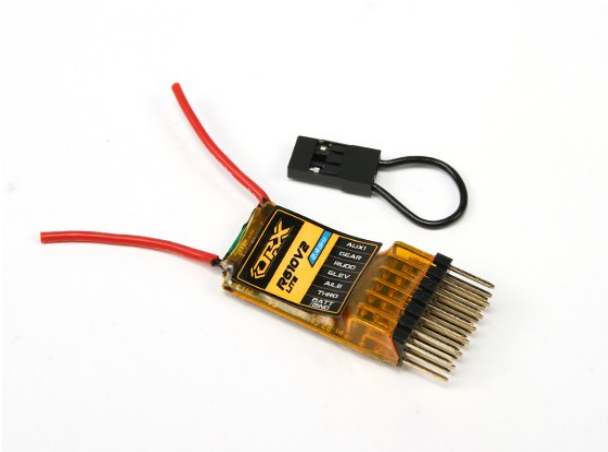
One electronic speed controller for each motor (ESC) will be needed. The ESC's are rated for 10 amps or more. If the wires that connect to the motors are too long, remove the wires that are soldered to the ESC, cut and strip the motor wires to size. Pre tin the wires, and solder them to the ESC.

Secure the ESC's with zip ties on the motor arms. As the blades spins, it will blow air on the ESC's and cool them a bit.

The Naze32 is an ideal flight controller for this project. It is inexpensive, easy to fly and simple to configure. This board is mounted on the ZMR250 PDB. A triangle on the Naze32 indicates forward, however this board can be configured later in the programming section.

The radio receiver requires voltage to operate (5V). You may use an 8 channel radio receiver.

In addition a receiver such as the DRX 610 V2 will be needed.



This particular receiver can be purchased from [WWW.HOBBYKIG.COM](http://WWW.HOBBYKIG.COM)

A transmitter can be purchased through this vendor: [https://www.amazon.com/OrangeRx-Digital-Modulation-Compatible-Transmitter/dp/B01HECXH6A/ref=sr\\_1\\_2?ie=UTF8&qid=1481814589&sr=8-2&keywords=t-six+transmitter](https://www.amazon.com/OrangeRx-Digital-Modulation-Compatible-Transmitter/dp/B01HECXH6A/ref=sr_1_2?ie=UTF8&qid=1481814589&sr=8-2&keywords=t-six+transmitter)

Connect all the power, and the ESC's. Configure the cleanflight app, [google.com/chrome/webstore](http://google.com/chrome/webstore), and select the Naze32 firmware. Follow all the setting and the instructions.

Add a camera if you would like to follow the drone flight.

You are almost ready to fly.....