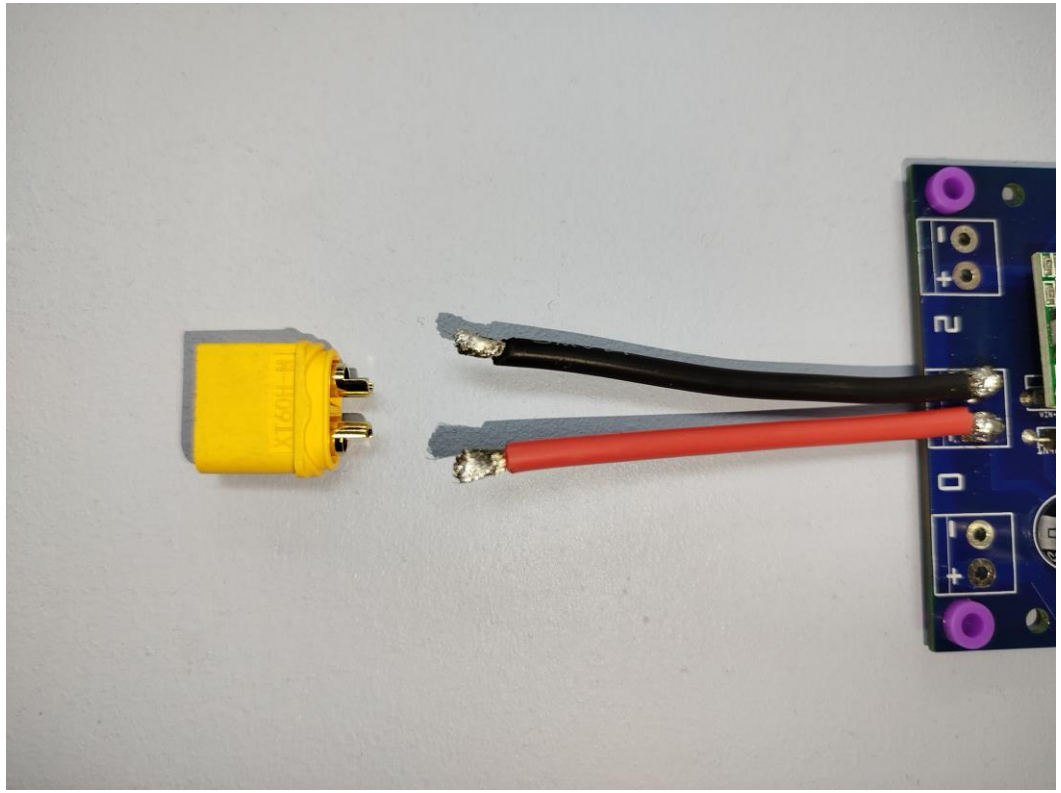
Synerduino Multirotor Kit V3

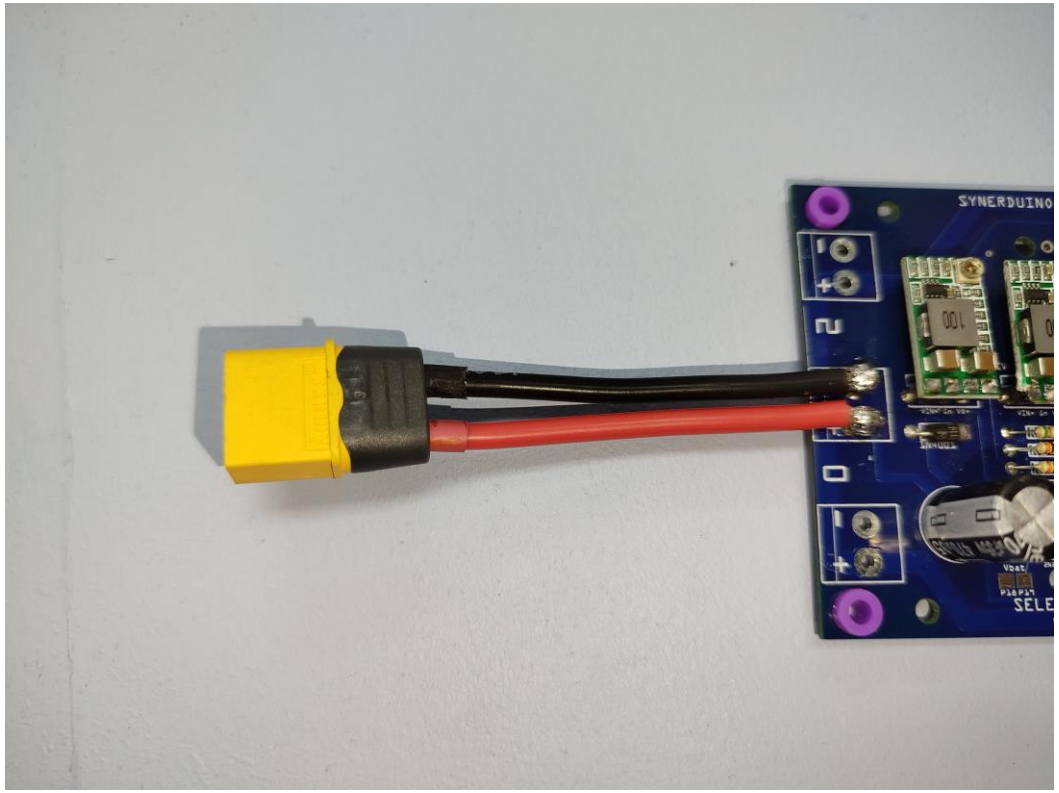
This is compatible to all the Synerduino Lineup of boards using the adapter plate which is compatible to CF frames with mounting holes

- 30.5mm X 30.5mm
- 25mm x 25mm
- 20.5mm x 20.5mm



POWER

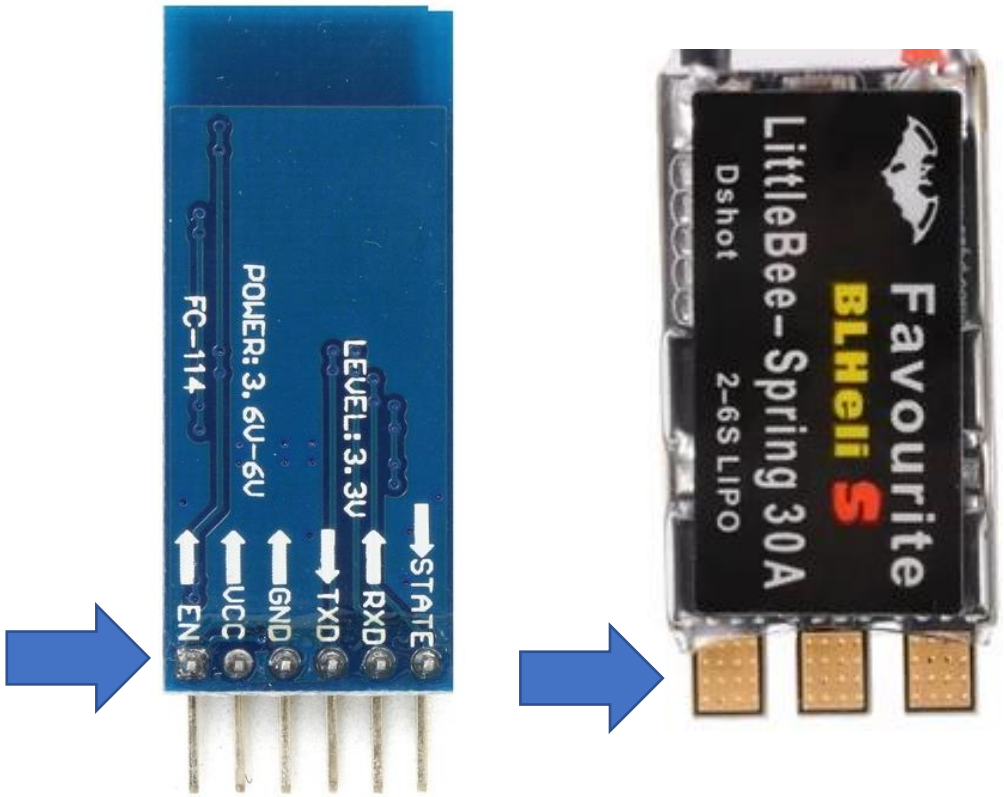




- Flat Side of the connector is + Red
- Rounded Side of the Connector is - Black





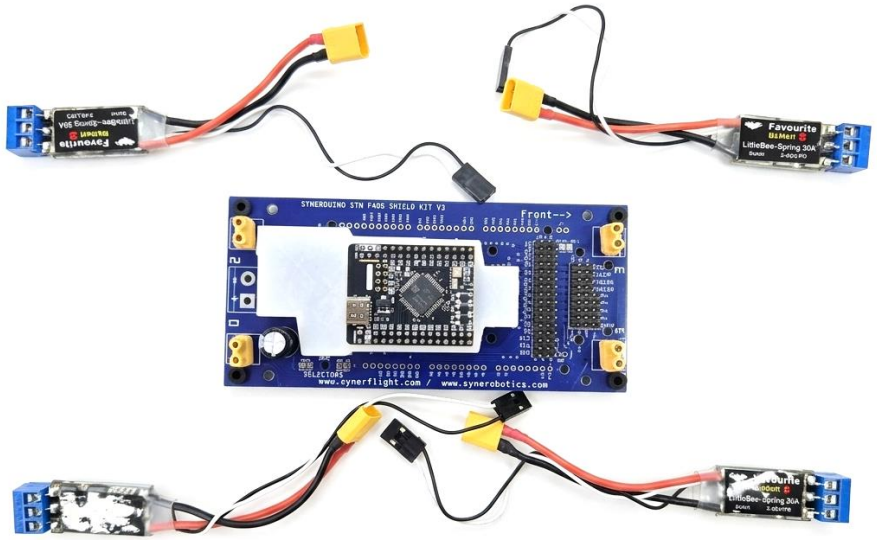


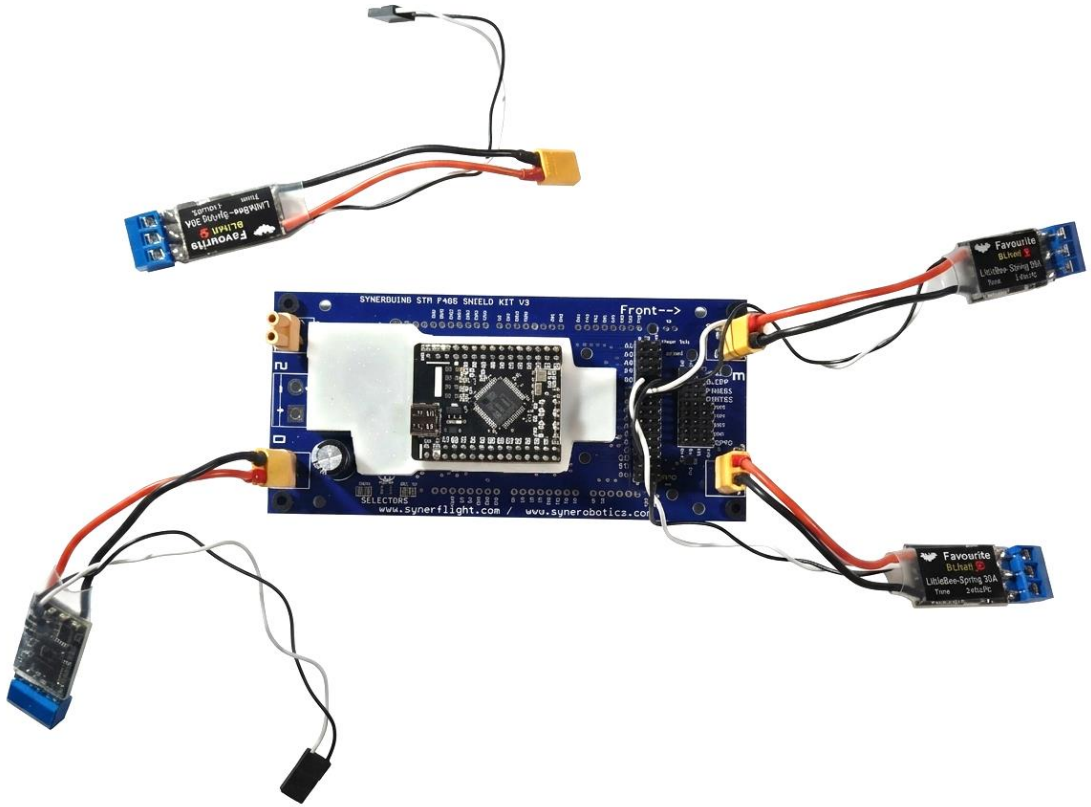




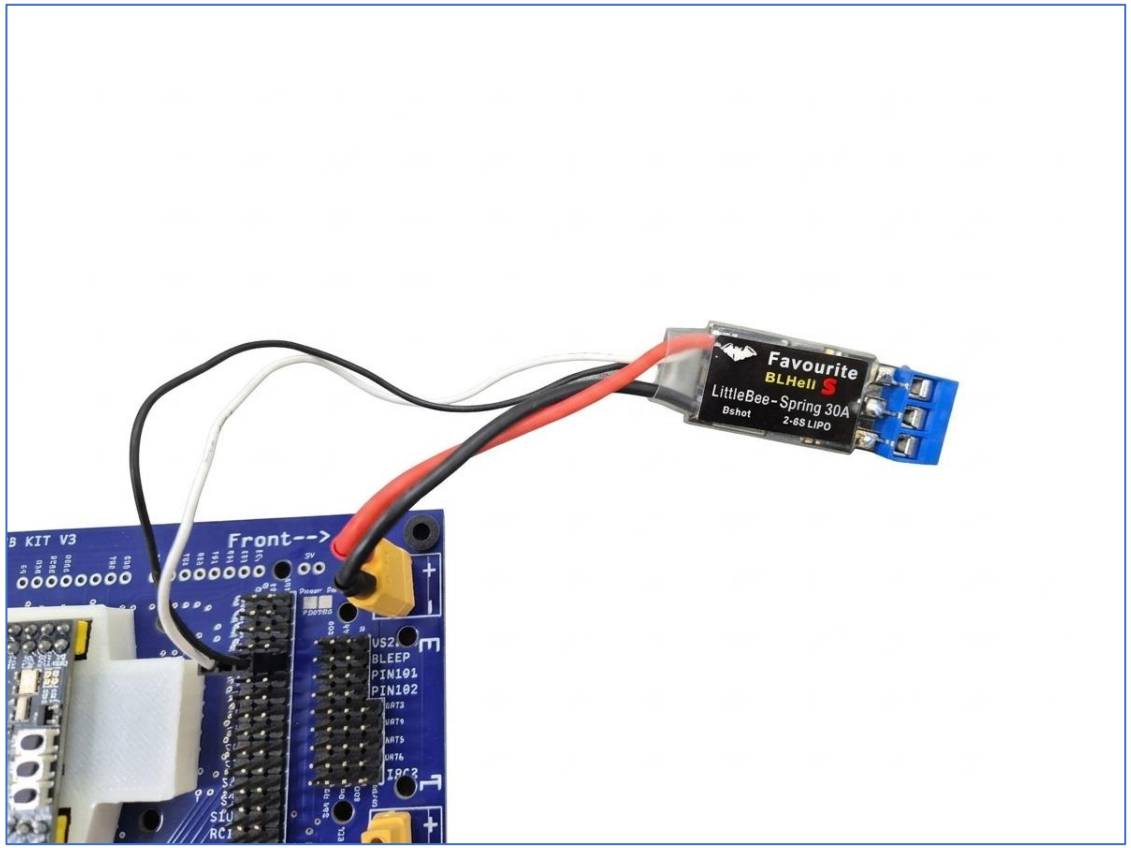
Note: CarbonFiber are conductive Shrink tube and insulation must be used on on any expose contact when ever possible

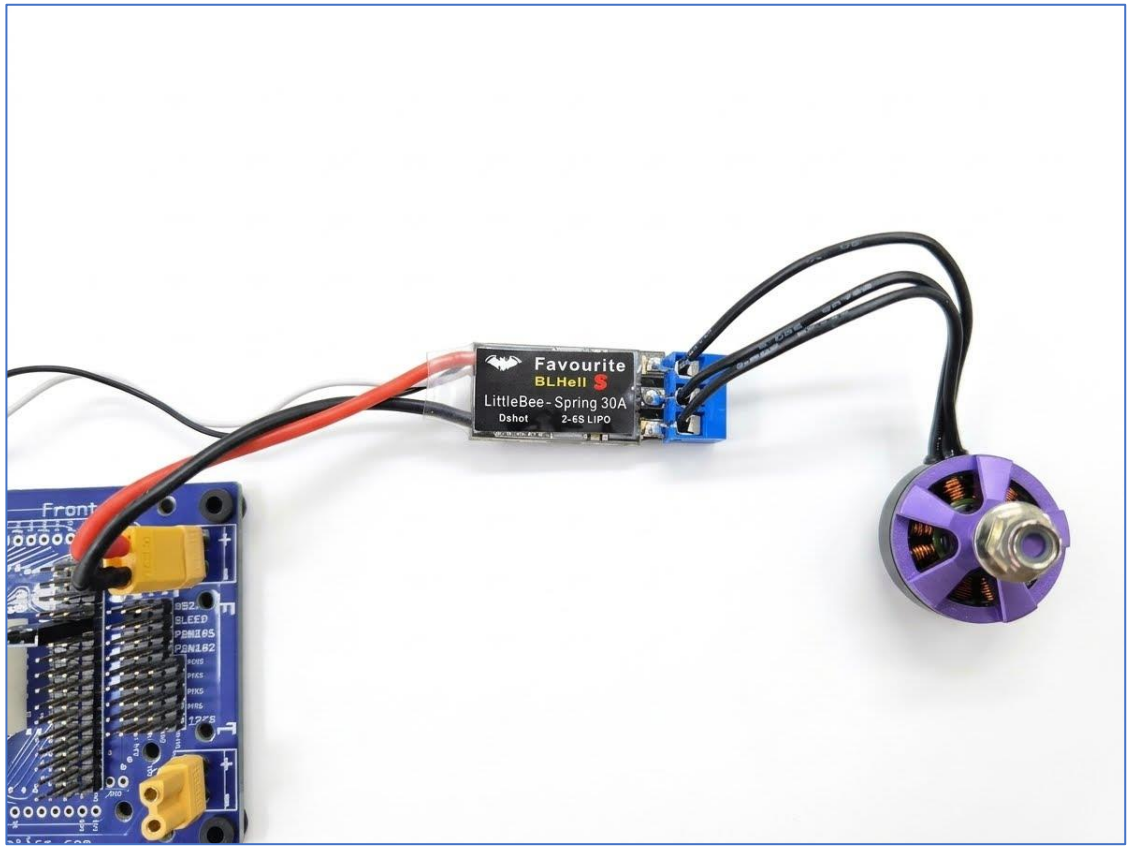
ESC INSTALLATION



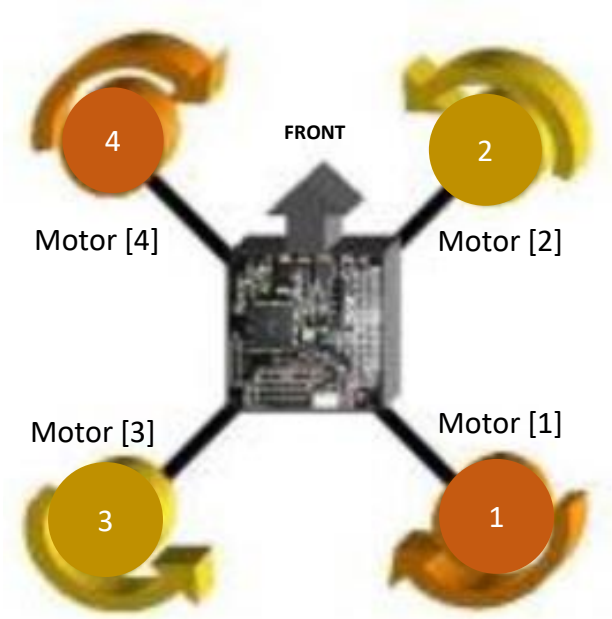


Motor Installation



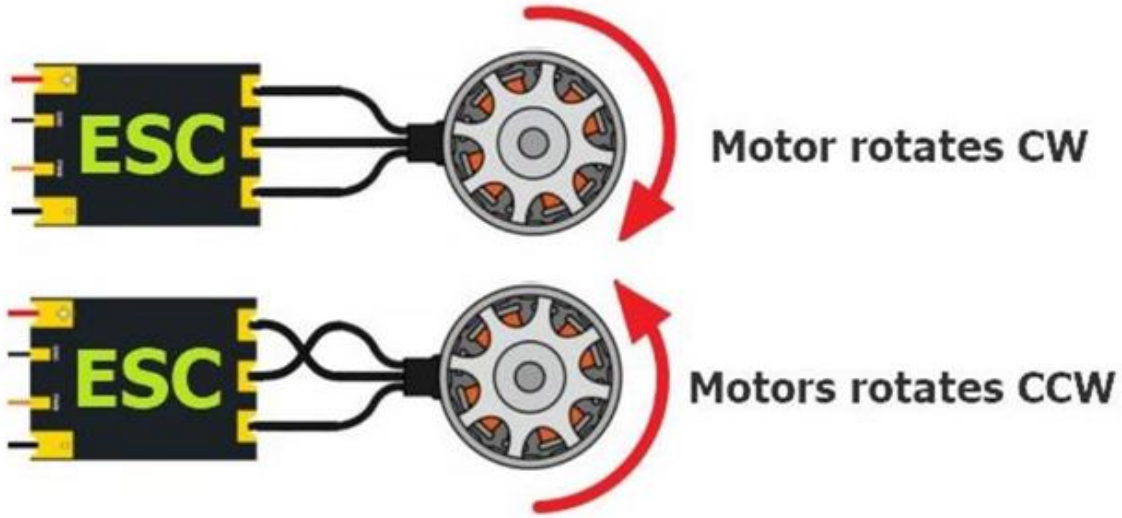


MOTOR, ESC, & PROPELLER INSTALLATION



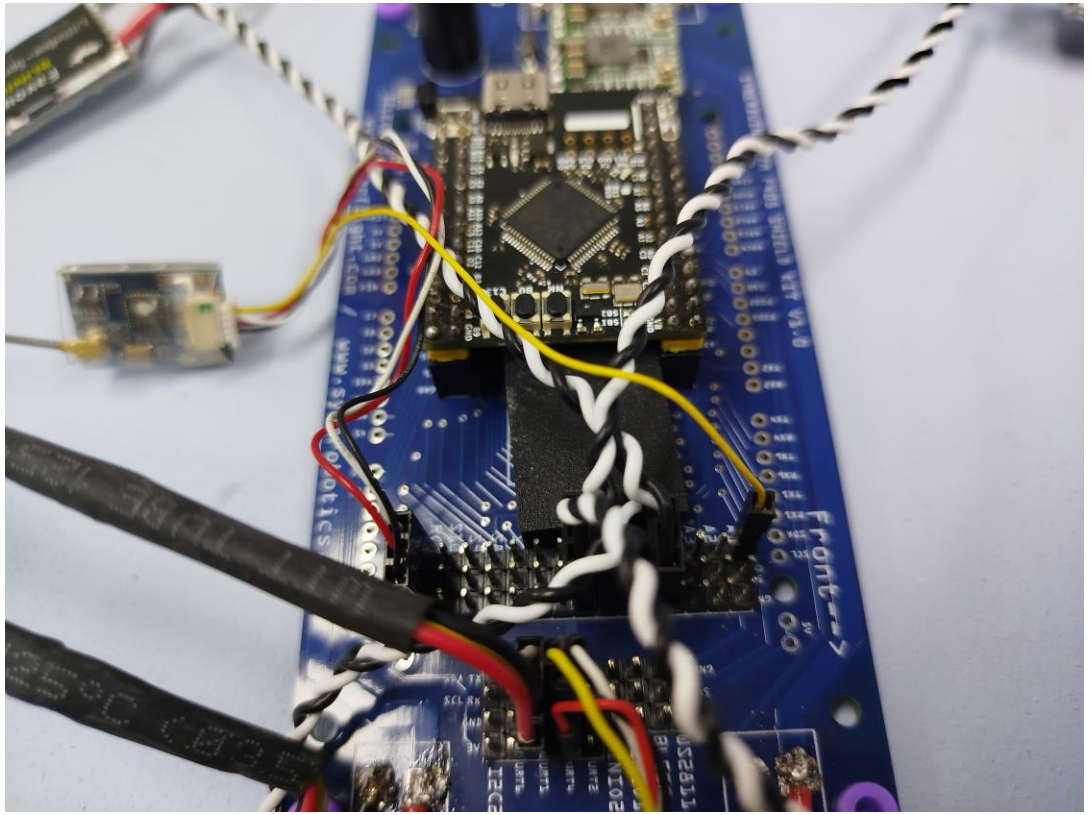
Note : you can pre solder the motor to the board and check for rotation before installing the propeller to ensure all motor rotations are correct

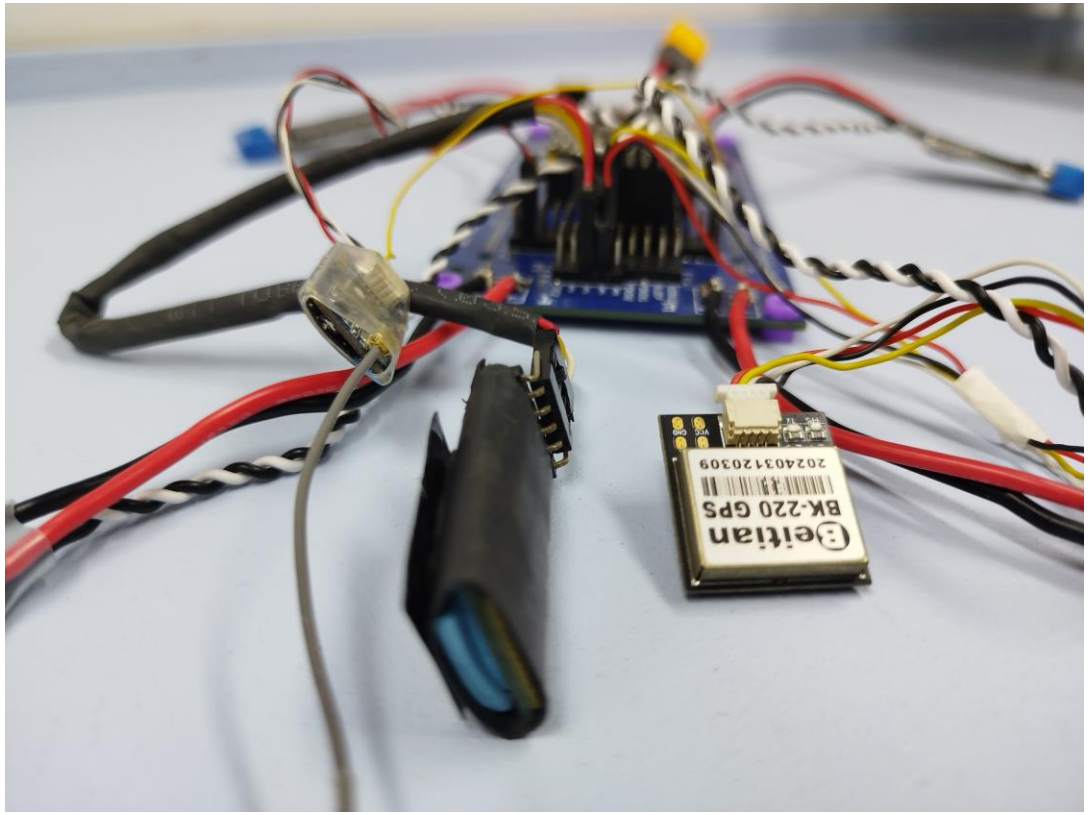
Electronic Speed Controller



Note : on some brands of motor they may come in two different prop nuts color (Known as self tightening nuts)

PERIPHERALS INSTALLATION





F405 RC RECEIVER & UARTS

ELRS 2.4G Receiver



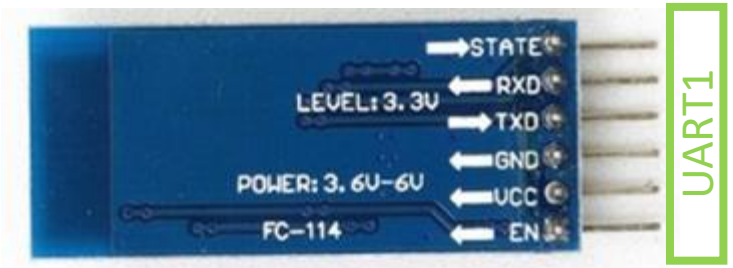
UART2

FS-i6X Receiver



RC1

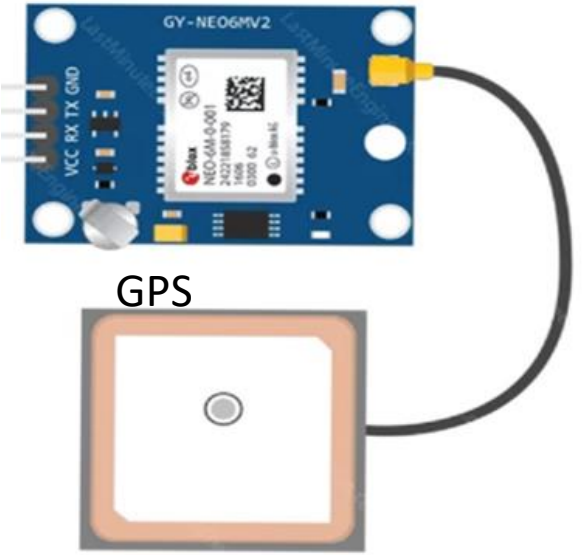
Receiver : Connect to RC1 / UART2



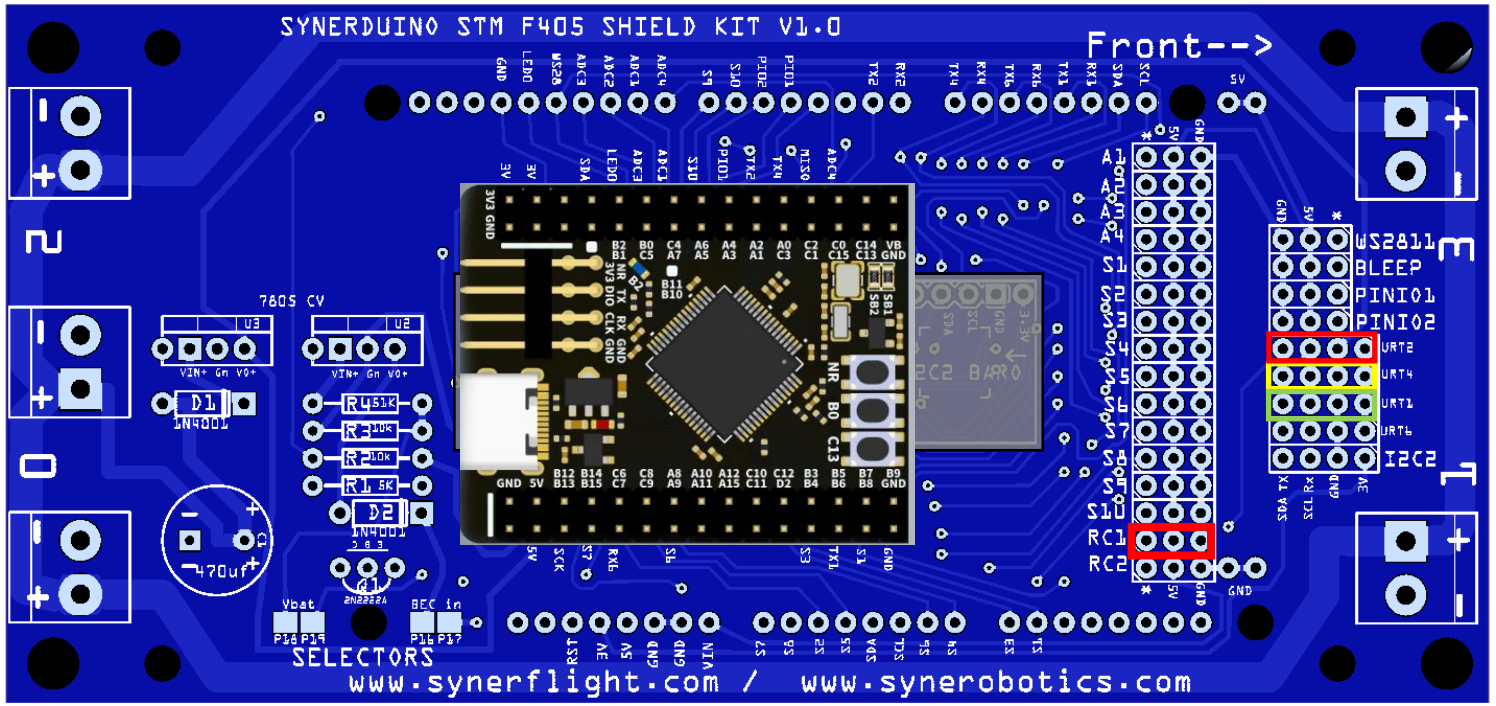
UART1

Bluetooth/Serial Radio

UART4

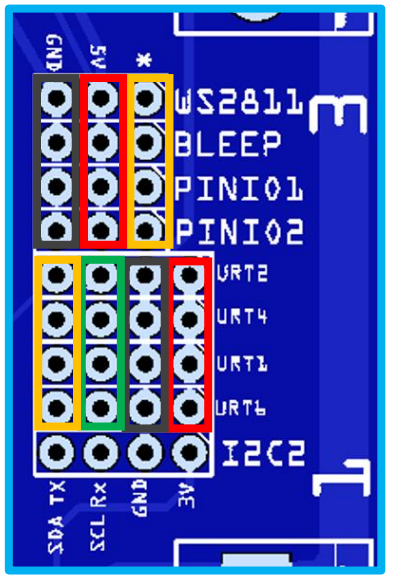


GPS



STMF405

Gn V+ Dat



TX RX Gn V+

Check connection Polarity

FRAME ASSEMBLY

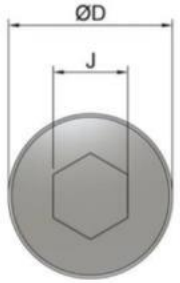
CF adapter is intended to make Synerduino compatible on most FPV drone frame from 5” to 12” class

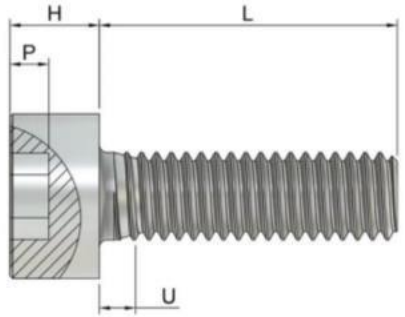


Thread Lock



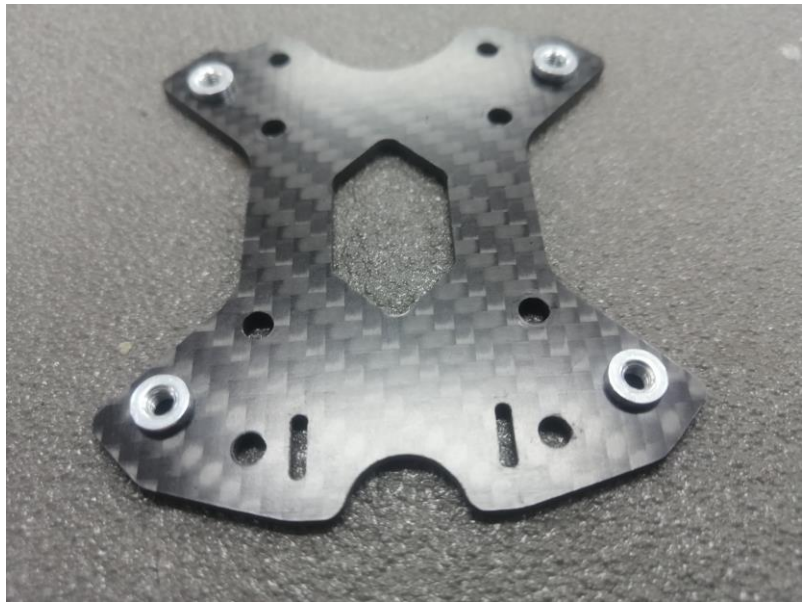
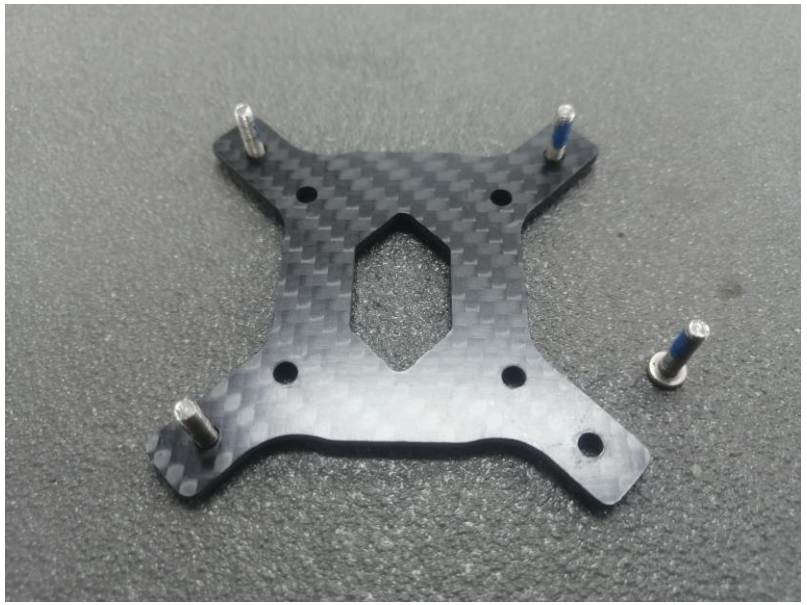
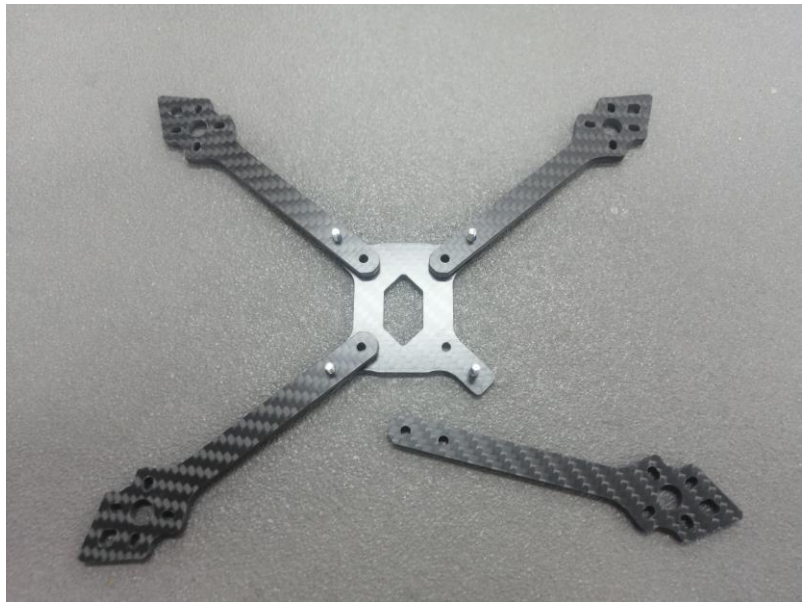
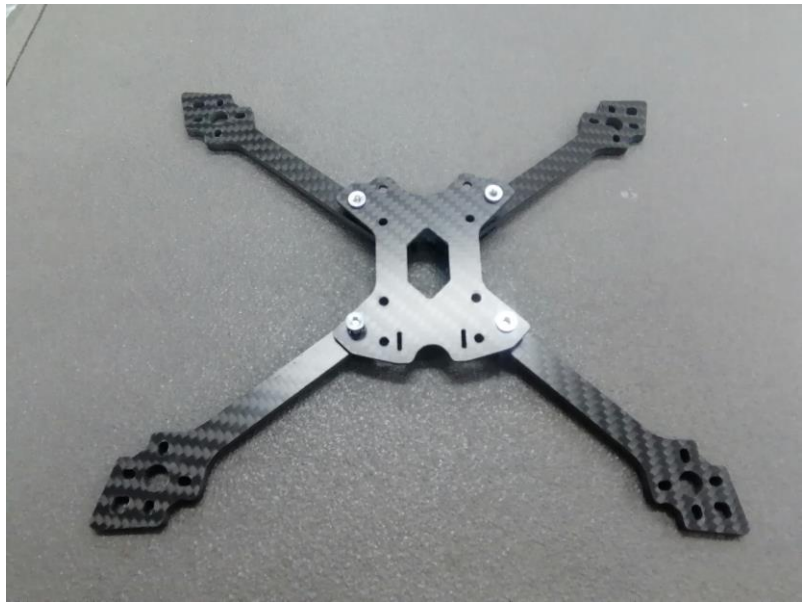
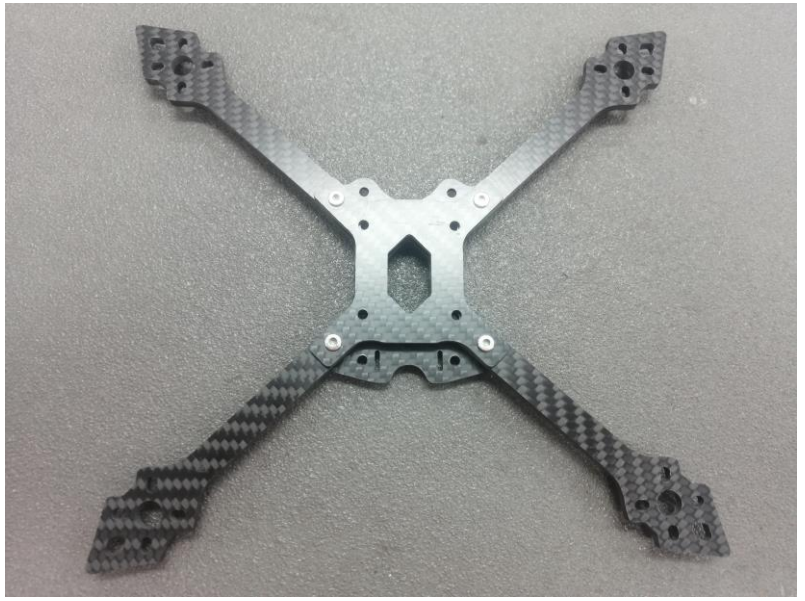




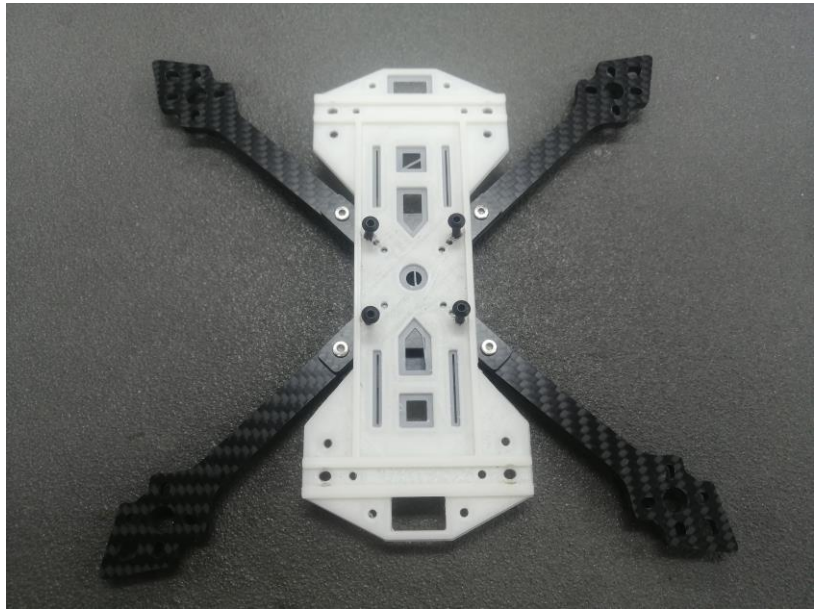
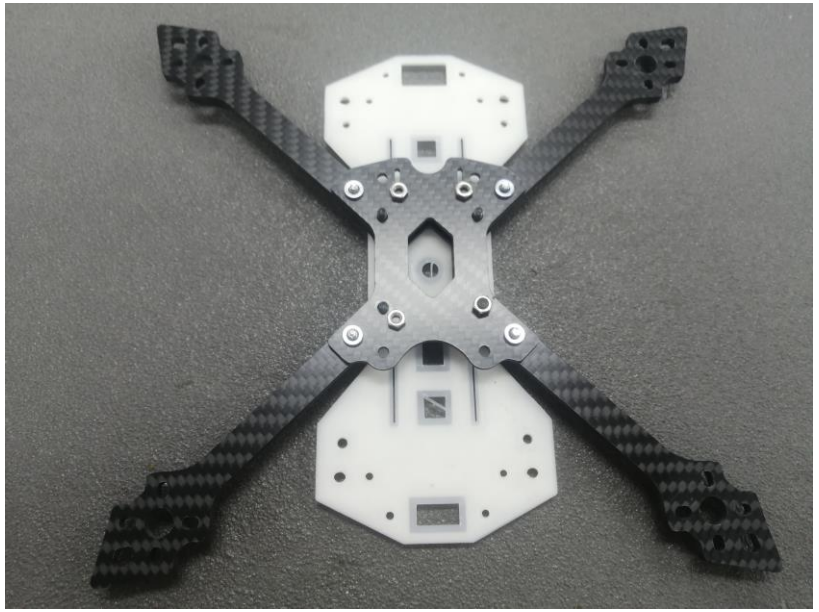
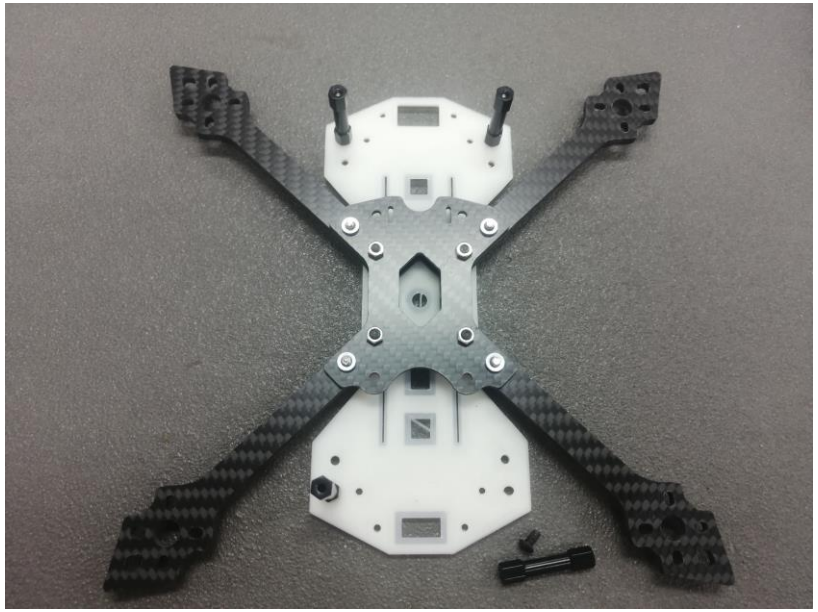
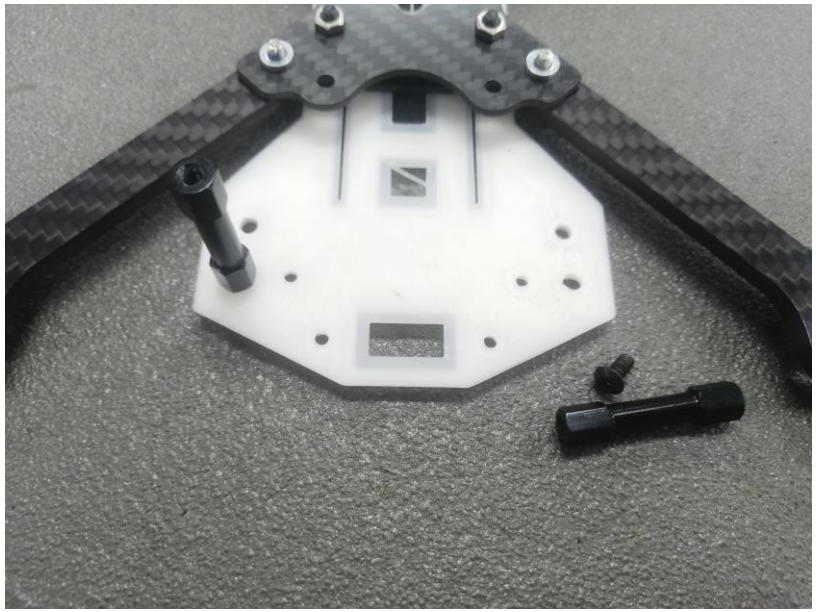


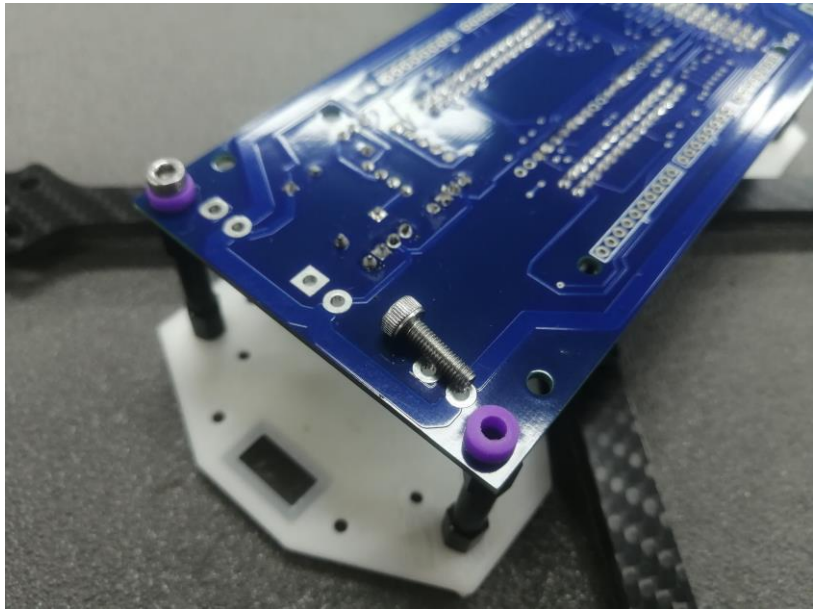
Thread Lock Purple or PVA Glue

Vibrations can cause bolts/Screws to come loose especially when bolts are on smooth plastic surface
Low strength thread lock or PVA glue are suitable in holding the bolts in place yet temporary enough that can still be remove by hand tools . Secure motors , PCB board and frame by applying a few drops enough to coat the thread of the screw and slowly tighten it in

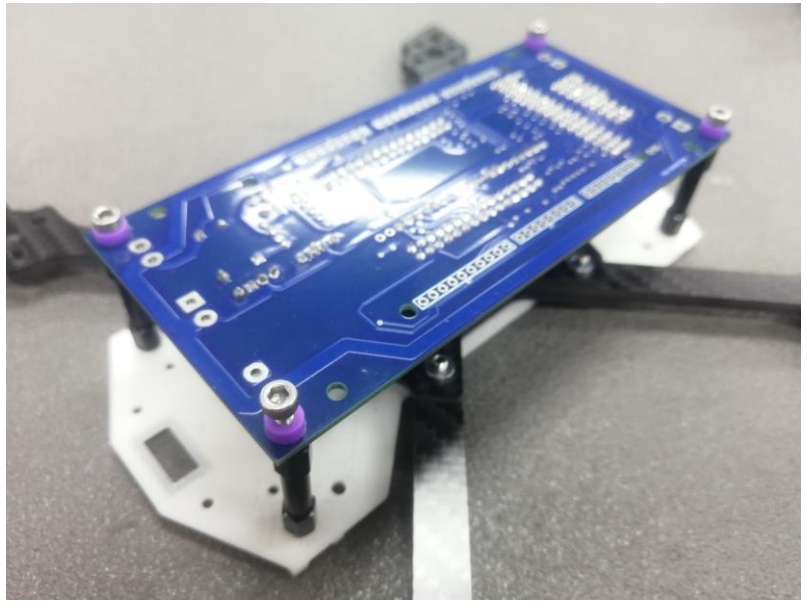







Assemble the CF plates and Arms using the Bolts and nuts provided

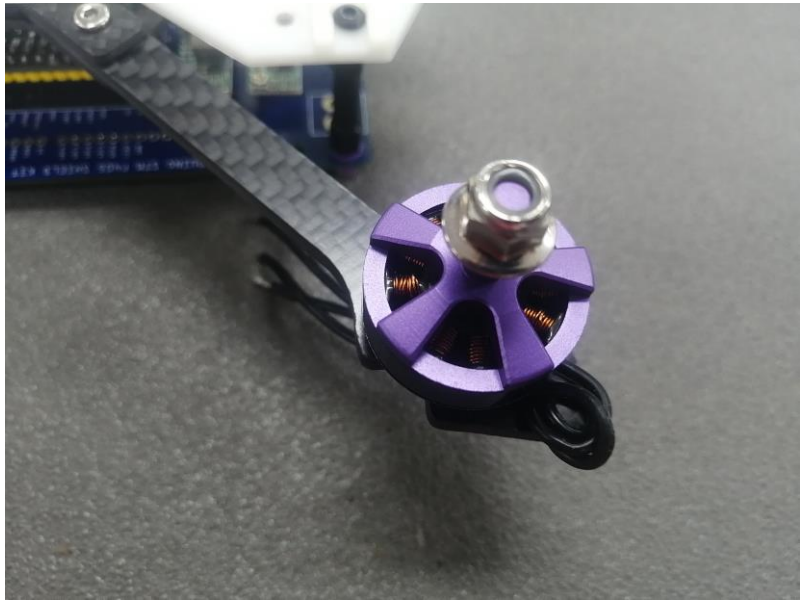







Attach the Adapter plate and Synerduino board using the spacers provided





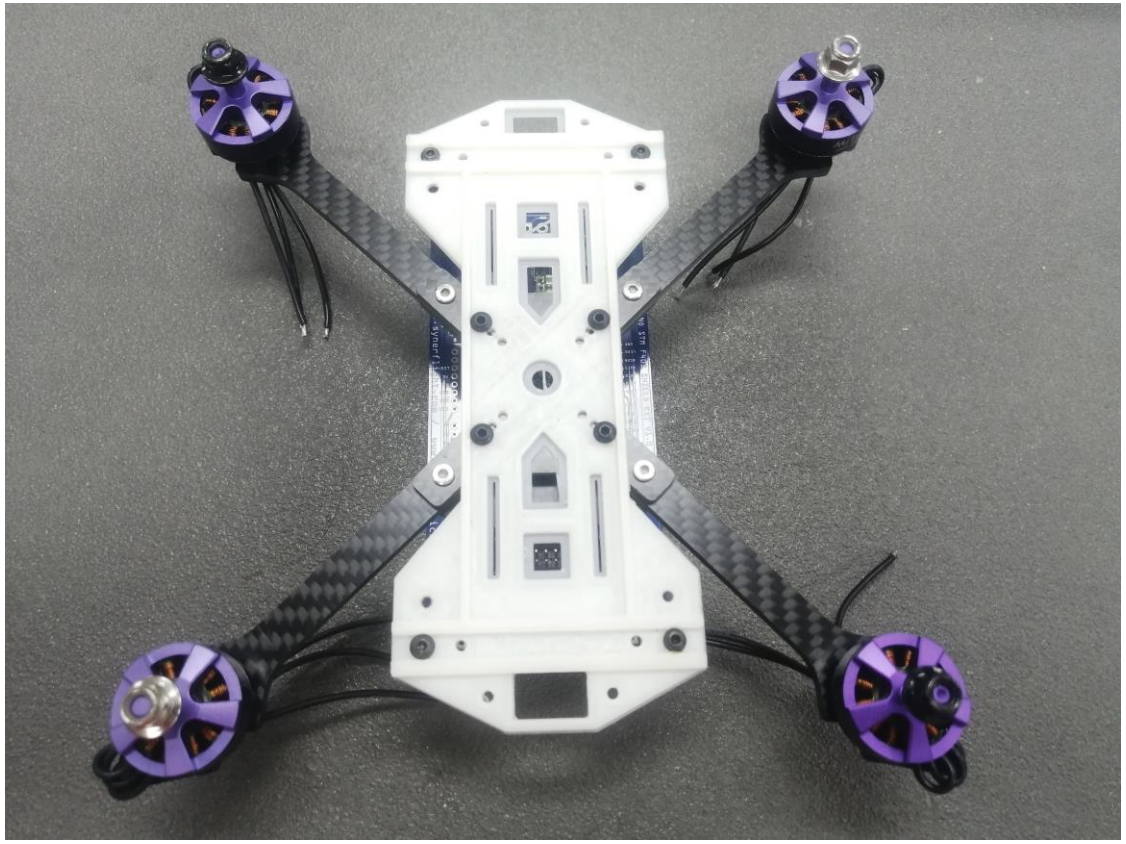


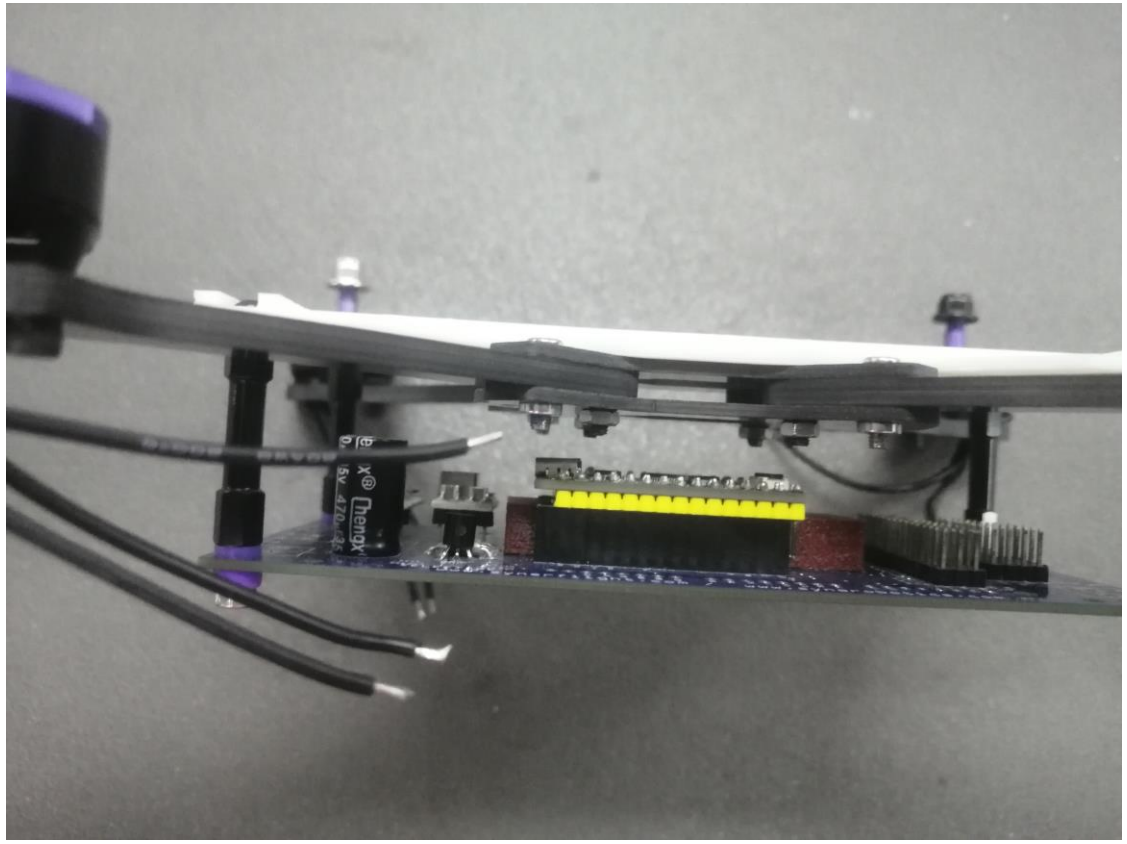
Note : this frame is design to use M3 bolts with thread length of 6mm with washer as fittings included in the set (use the shortest bolt that came with the
motor set)

Ensure that the bolt thread does not touch the inner
wire coils of the motor

Use small amount of PVA white Glue to Thread Lock the bolt in place
Preventing it from going loose

FRAME ASSEMBLY





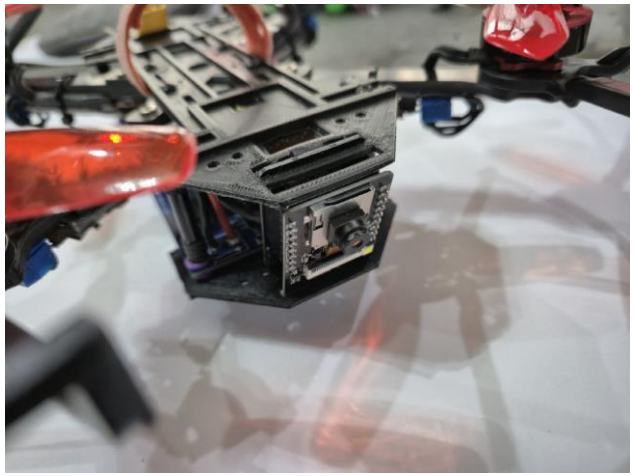
Ensure sufficient clearance between the CF plate and the board below

Accessory



V3 Accessory Top and Bottom Adapter Plate allows installation of mounting points for sensors and other electronic hardware

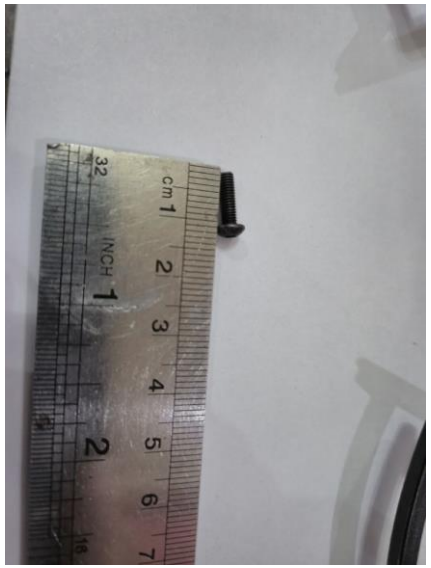


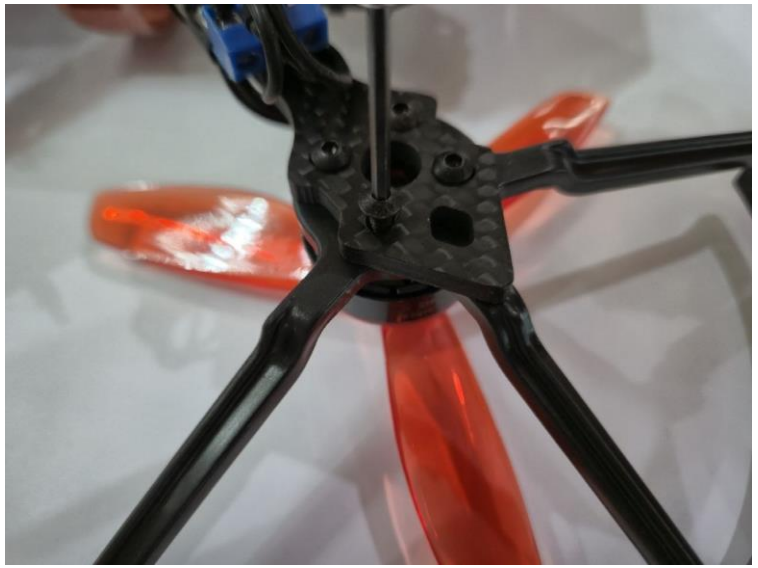


Accessory

Propguard Option required replacing the replacing
the 6mm bolt with a 10mm bolt













Once all the hardware been calibrated tune and setup you may zip tie the ESC and Tape insulate all the Solder Pads to prevent Short

Check twice plug once

Check Polarity and connection assignments of all your wires prior to plugging it in.