

Drone Assembly

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Outline

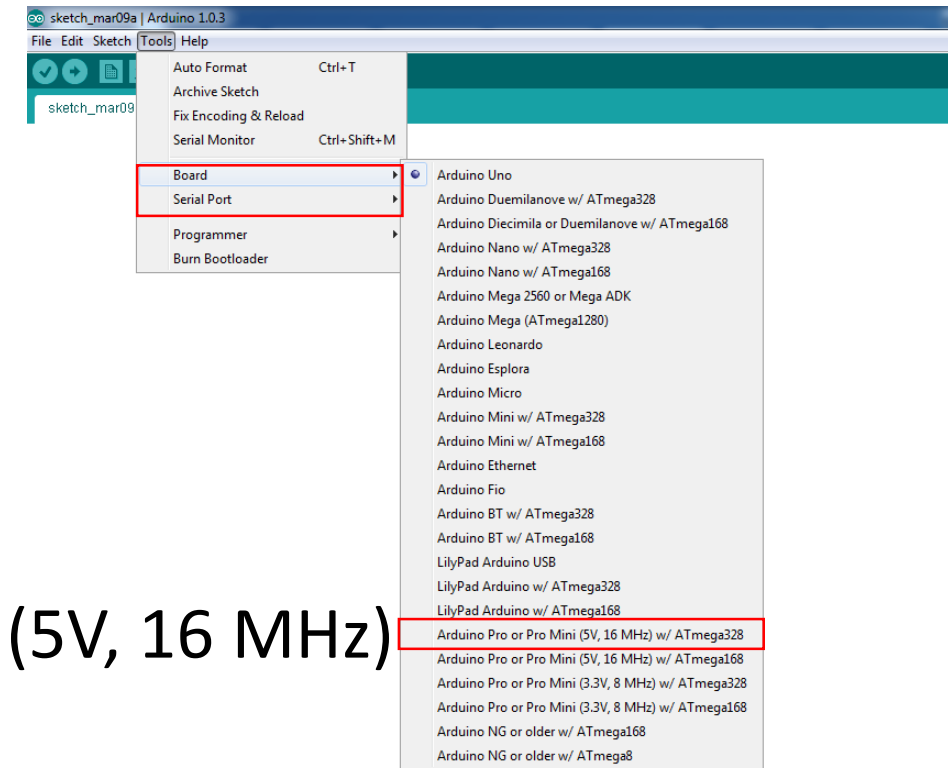
- Software and drivers download
- Install Firmware
- Multiwii Configuration
- Inputs/Outputs
- Remote Control calibration
- Electric Speed Control Calibration

Software and drivers download

- Download and Install arduino-1.0.3-windows.zip with link below
- Download MultiWii_Flip_NORMALQUADX.zip, MultiWiiConf23.zip and USB_DRIVERS_Windows.zip with link below
- <https://www.dropbox.com/sh/3ptxpwesovd7tx3/gYdZU3lXQh>
- Unzip MultiWii_Flip_NORMALQUADX.zip and place it in Arduino folder.
- Unzip and Install USB_DRIVERS_Windows.zip
- Open Device Manager and find the COM port number which connects to flip 1.5

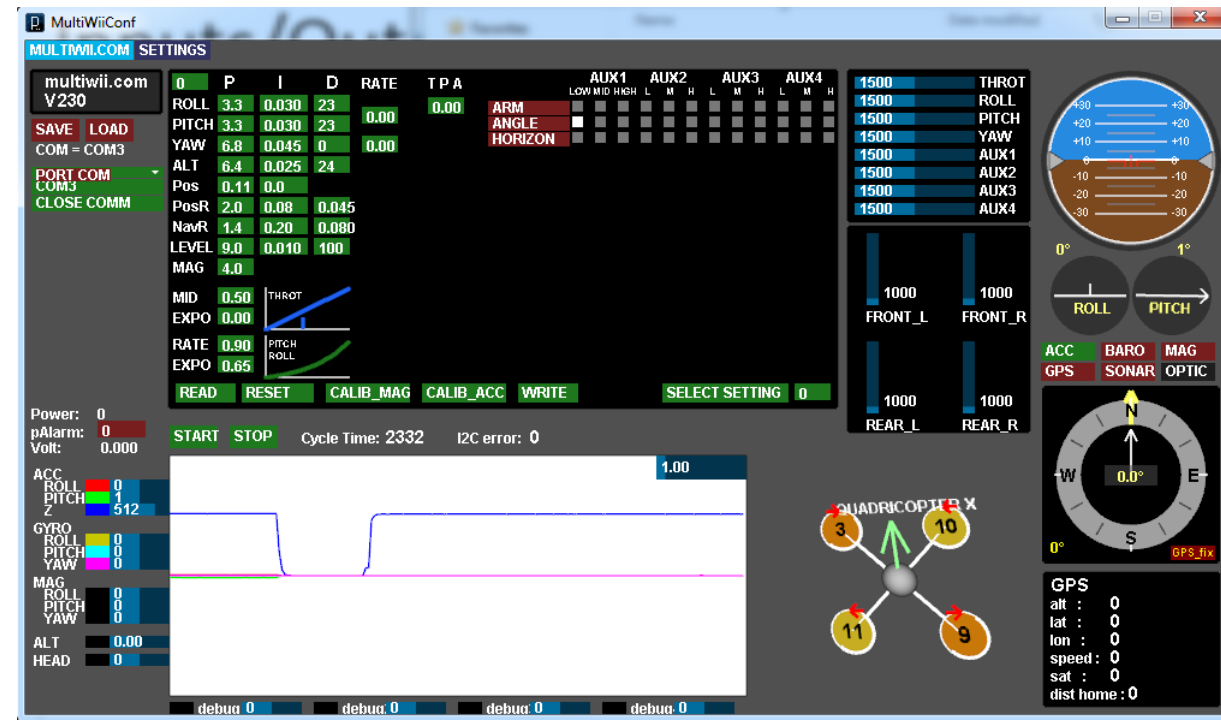
Install Firmware

- Open Arduino IDE
- Open Multii_Flip.ino
- Select Tools/Board/Arduino Pro or Pro Mini (5V, 16 MHz) w/Atmega328
- Select Tools/Serial Port/Com#
- Upload to the board

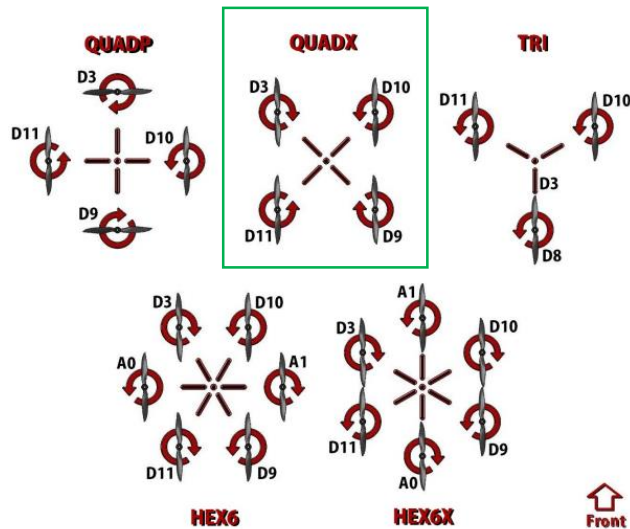
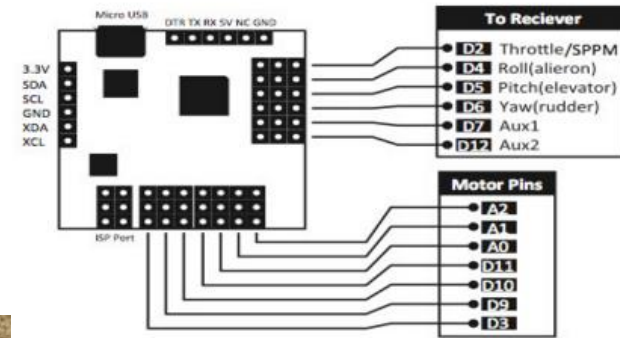


Multiwii Configuration

- Unzip and Open MultiWiiConf (windows32)
- On the left panel should show COM# if the board is hooked up correctly
- Select COM#
- Select Start and monitor graph
- To calibrate accelerometer, set the board on flat surface and select CALIB_ACC

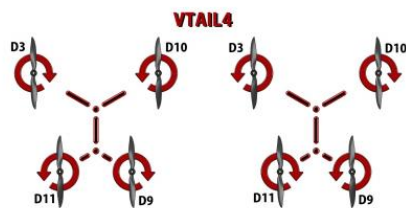


Inputs/Outputs

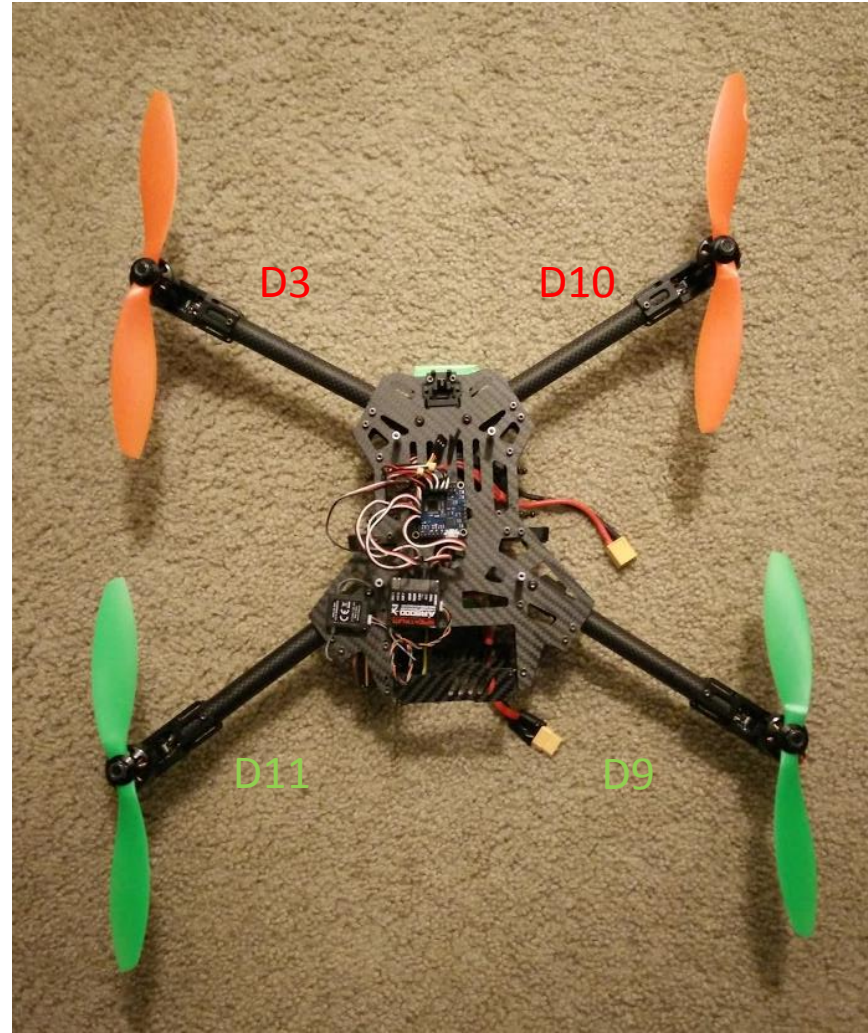


Common propeller orientation and pinout for FLIP MultiVii Controller

Note that the direction of rotation for the Quad X configuration may change from drawing to drawing; the important part is the respective orientation (D3 and D9 should rotate the same way, as should D10 and D11).



Common propeller orientation and pinout for FLIP and VTail config



- Use D3, D9, D10, D11
- Not use: A0, A1, A2
- Note that one of the analog channel is used to power up flip because the power of digital channels are disconnect.

R/C calibration

Servo	Min	Max
Throttle	-150%	150%
Aileron	-150%	150%
Elevator	-150%	150%
Rudder	-150%	150%
Aux1	-100%	100%
Gear	not in use	
Aux2	not in use	

Electric Speed Control Calibration -ESCs

- Connect one of the ESC to throttle on the receiver
- Power up R/C and put throttle on high
- Power up Receiver using 4.8V from battery
- There should be a music sound
- Put throttle on low and there should be another music sound
- Result: there was no music sound in the procedure, and ESCs are not calibrated.