Multi:bit

Control board

This instruction is for experimental use of the board.
If you need specific instructions, see www.makekit.no/docs and select your product.

About

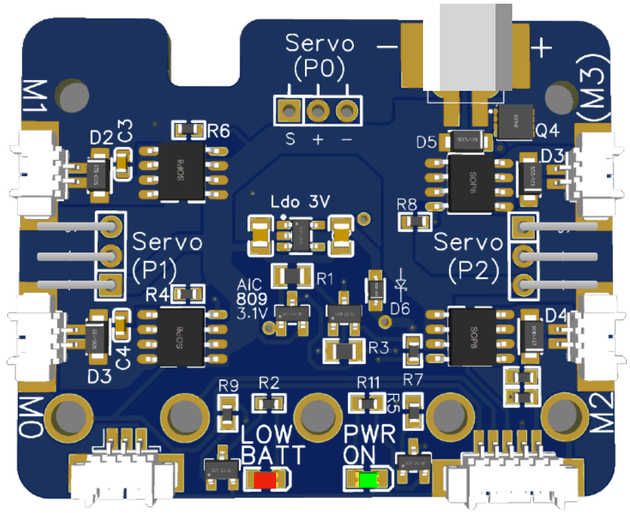
The multibit control board is a motor and servo controller for micro:bit. It can be used for general motor control, solenoids, loudspeakers, pumps and more.

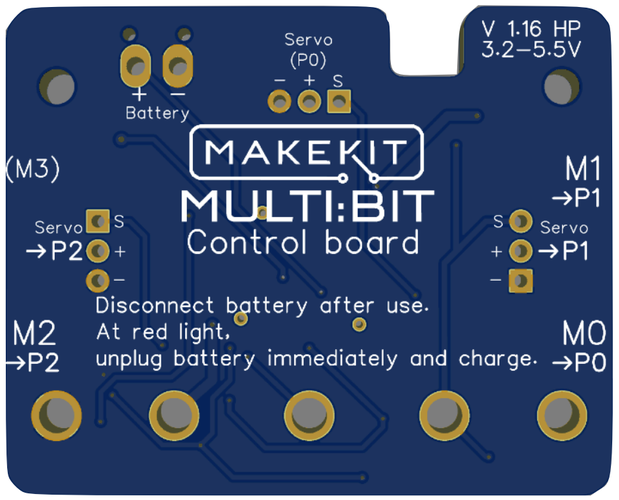
It features 3 powerful motor outputs, and two servo outputs. It has a few extra features for drone use.

Advantages
High power motor and solenoid control (10A max)
Better servo control, more torque
Low-battery protection
Small footprint, easy to use
Flexible

Power
3.2-5.5 v. You can use MakeKit 1s LiPo, 3 or 4xAA battery, or USB. The board has a low voltage cut off circuit to prevent LiPo or nimh-battery from over-discharge.
You can solder your own power source on the back of the board (top left)

Charging
No internal charging, external charger must be used.



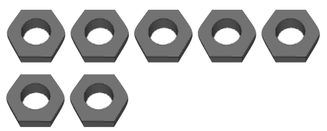


Assembly

Parts:

2x
nylon screw
M3x12

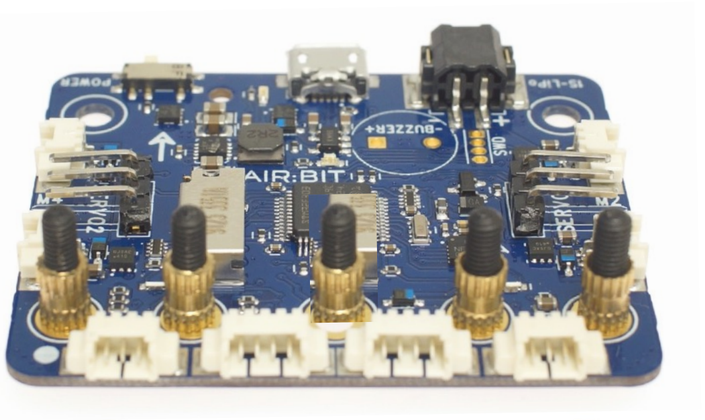
5x
nylon screw
M3x12



7x
nylon nuts
M3

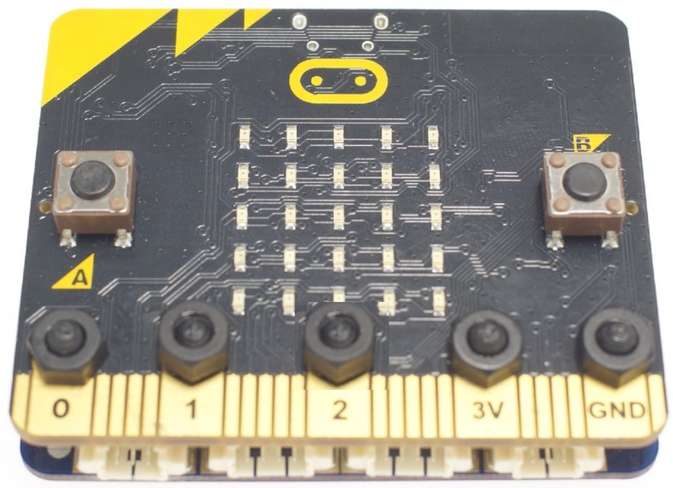
5x
knurled brass nuts
M3

Screw the five brass nuts to the screws.



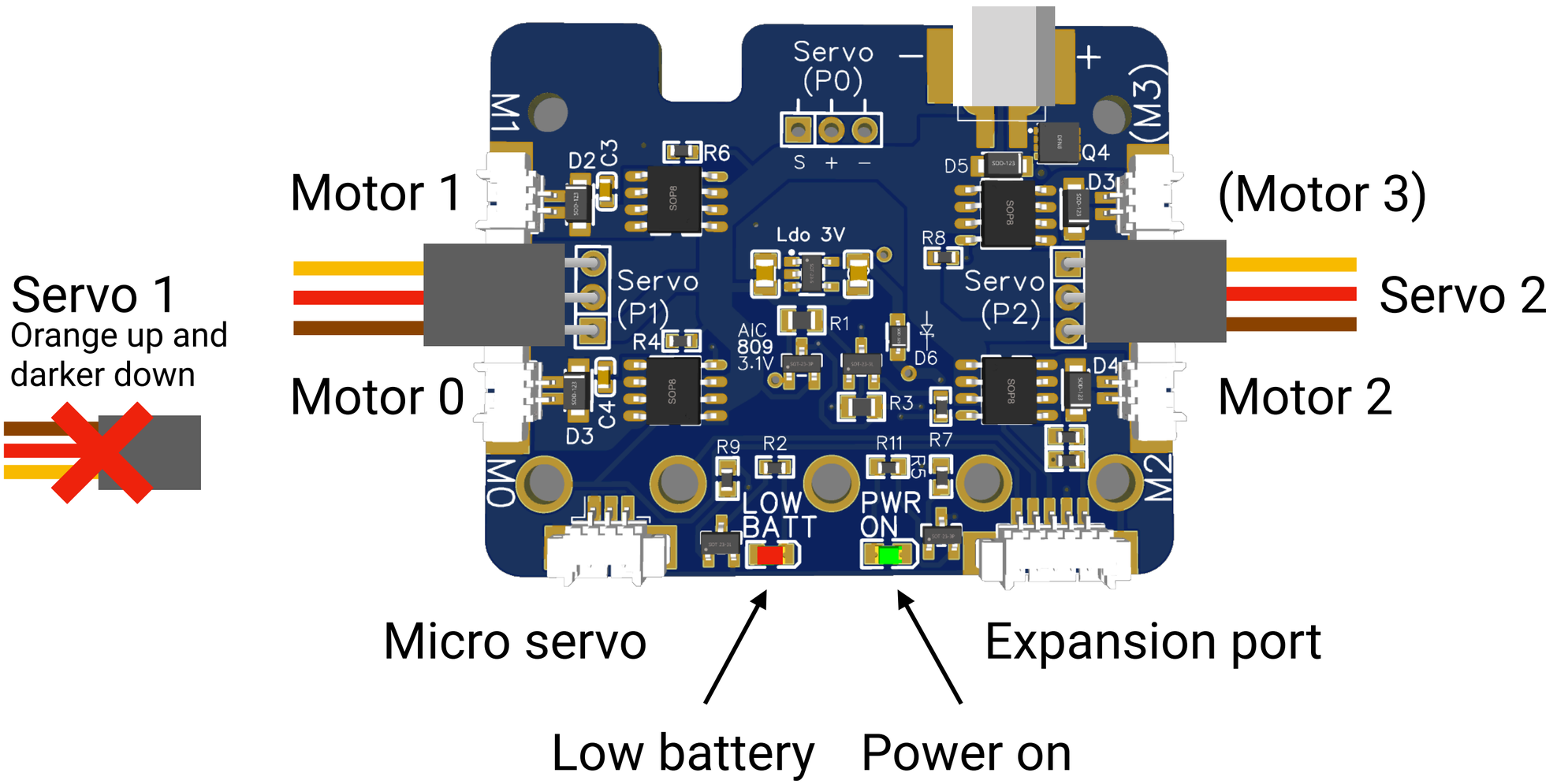
Screw the two nylon screws on the back side with two nuts

Mount the micro:bit on top with 5 nuts.



Make sure there is no wiggle on the brass nuts. They should carry electrical signals to micro:bit and back. The 5 nuts on top also needs to be thight.

Connections



Control

You can control 3 motors and 2(3) servos, but each pin can **only control either motor or servo simultaniously**.

Pin	Motor		Servo	Comment
P0	M0	- Or -	(S0)*	Choose between motor 0 and servo 0
P1	M1	- Or -	S1	Choose between motor 1 and servo 1
P2	M2	- Or -	S2	Choose between motor 2 and servo 2
	(M3)			External connection only
				*User must add connector

Code

Select P0, P1, or P2:

Control a servo (0-180 degrees)

Control a motor (speed control)

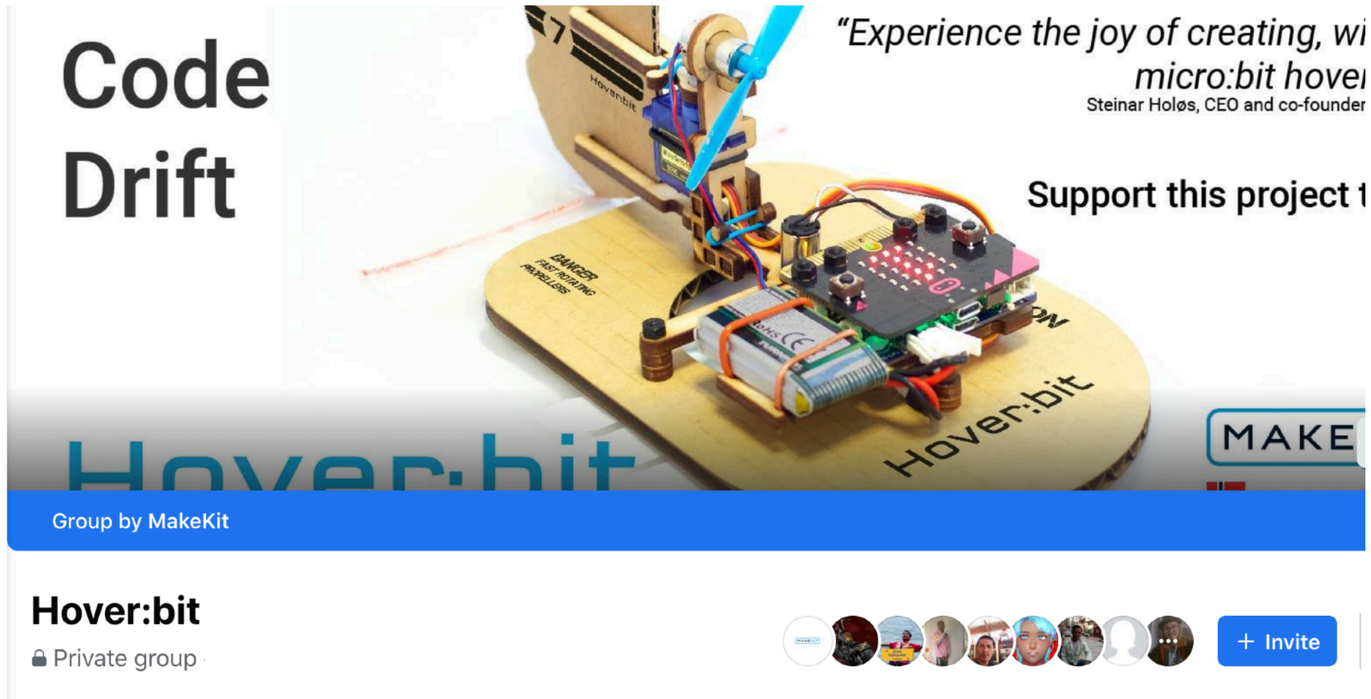
Choose speed between 0 (off) and 1023 (full speed)

Control a motor (on/off)

1 = power on, 0 = power off

Contact:

Get tips and help in our Facebook community:
www.facebook.com/groups/gohoverbit/



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