MMC Quick Start Guide

Lesson 4) Using Stepper Axis 4

An additional stepper motor axis is available on the option connector for use with an external stepper drive. An encoder channel is also available.

Perform Wiring

Step 1) Wire the stepper drive according to the following signal table.

DSub Pin	Description
1	Step+
14	Step-
2	Dir+
15	Dir-
5	Enable High (TTL)
18	Enable Low (TTL)
9	Enc A+
22	Enc A-
10	Enc B+
23	Enc B-
11	Enc I+
24	Enc I-
12	5 Volts
25	Ground

Refer to the wiring instructions of the external drive for corresponding drive connections.

Step 2) Apply power and start the Snap2Motion software. You should expect to see the green LED start to blink and the yellow LED steady on.
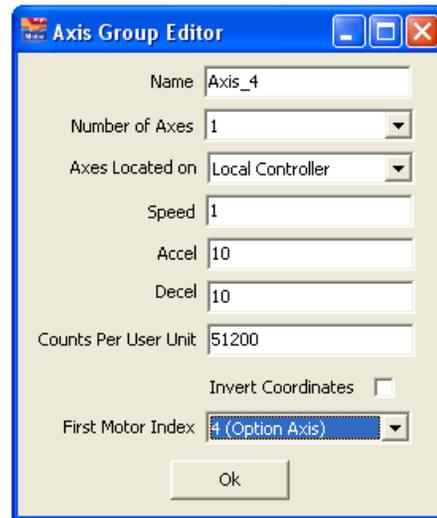
Step 3) Click the "Setup Tab".

Step 4) In the "Axis Group" area click on the "Add" button to create a new named axis

Step 5) Edit the contents of the editor to match below. Change the name to "Axis_4" (although it can be whatever you choose). Modify counts per user unit to match your mechanical structure. For "First Motor Index" select "4 (Option Axis). Then click "Ok".

Step 6) Repeat the procedure to add an additional axis for the encoder if needed named "Encoder". For the "First Motor Index" indicate "5 Option Axis".

Test Motor and Encoder

Step 7) Click the "Run" Button

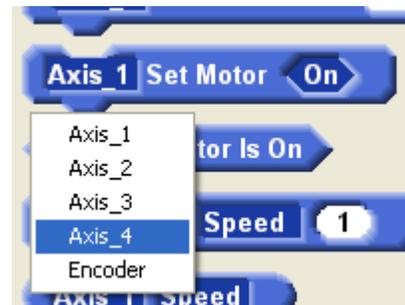and wait for the status to indicate "Running".

Step 8) Click on the "Blocks" tab.

Step 9) Select "Main" from the object list and click the "Motion" Category.

Step 10) Scroll to the Set Motor On block, click on the axis field. Note that the axis list now includes the additional axes. Choose "Axis_4".

Step 11) right click on the body of the block and select "Do It" from the local menu,

Even if the enable is not needed to power the motor the "Set Motor On" needs to be used to prepare the axis for motion.

Step 12) Scroll to the "Jog" block, Select "Axis_4". Right click on the body of the block and select "Do It".

Step 13 Stop the motor by using the "Stop" block in the same manner.

Step 14) Rotate the encoder and scroll to the Actual Position expression block. Select "Encoder", right click on the body, and select "Do It".

The value is shown in the Prompt