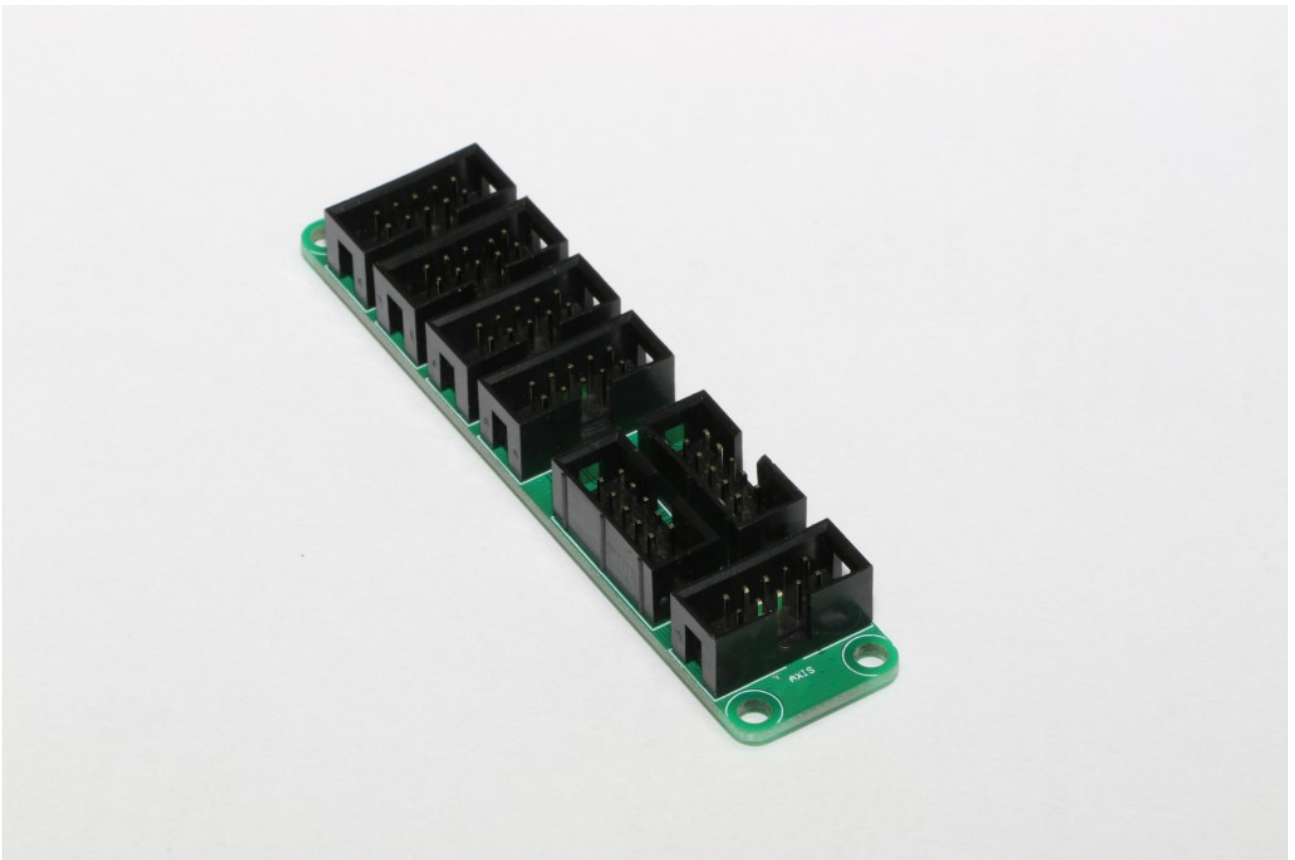# PlanetCNC Demux board

With PlanetCNC demux board user can expand number of axis outputs of controller.

Demux board offers three additional axis outputs, providing 4 axis outputs in total per demux board.

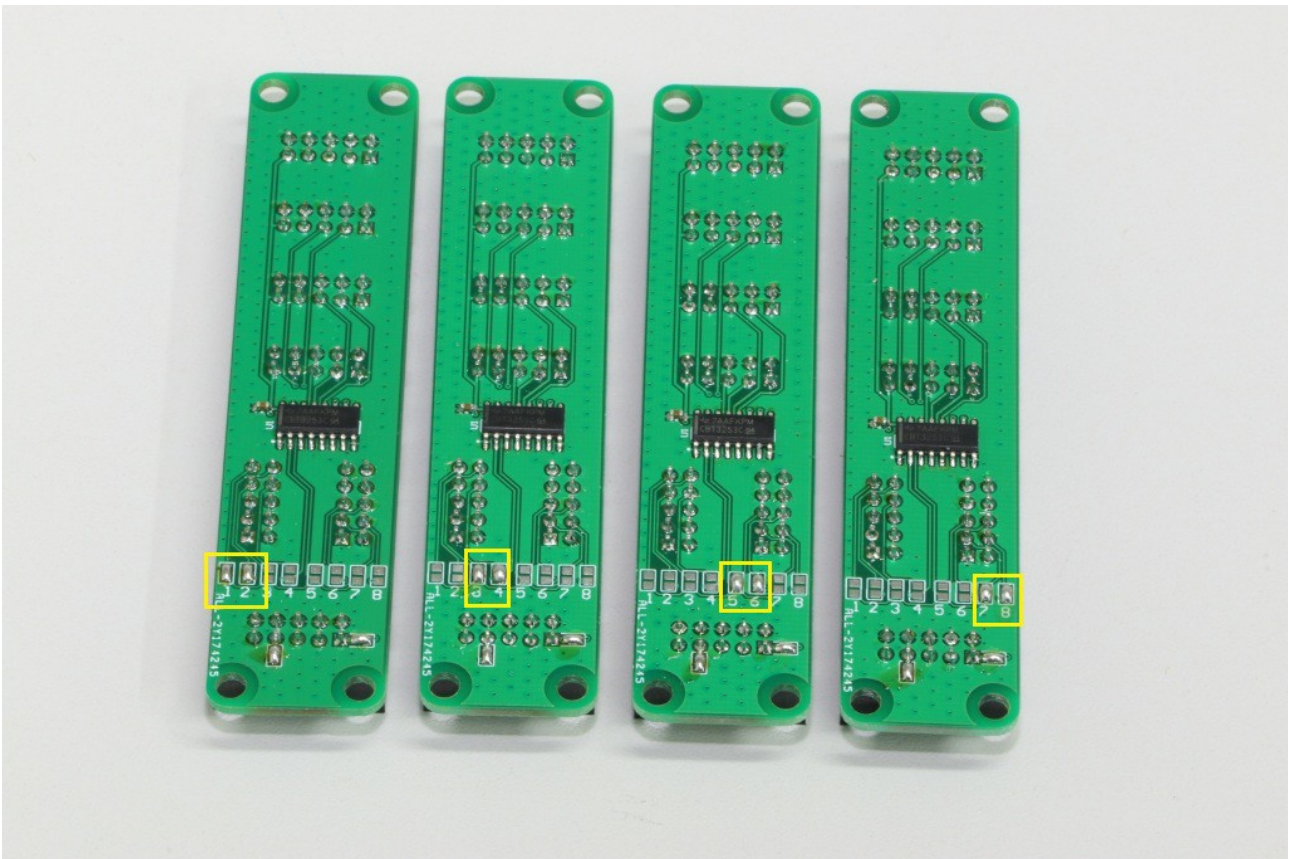User can switch between axis outputs using 2 digital outputs of controller.

Please note that only one motor connected to demux board can be driven at the same time

Configuration of demux board:

User needs to configure demux board in order to switch between demux axis outputs.

For this purpose demux board uses 8 solder jumpers at the bottom side of the board. By soldering two of them(they are numbered from 1-8), user defines which two digital outputs of controller will be used for specific demux board:

Jumpers are usually soldered in pairs as: 1,2(first board) ; 3,4 (second board); 5,6(third board) ; 7,8(fourth board).

Controller output pin combination defines active demux axis output:
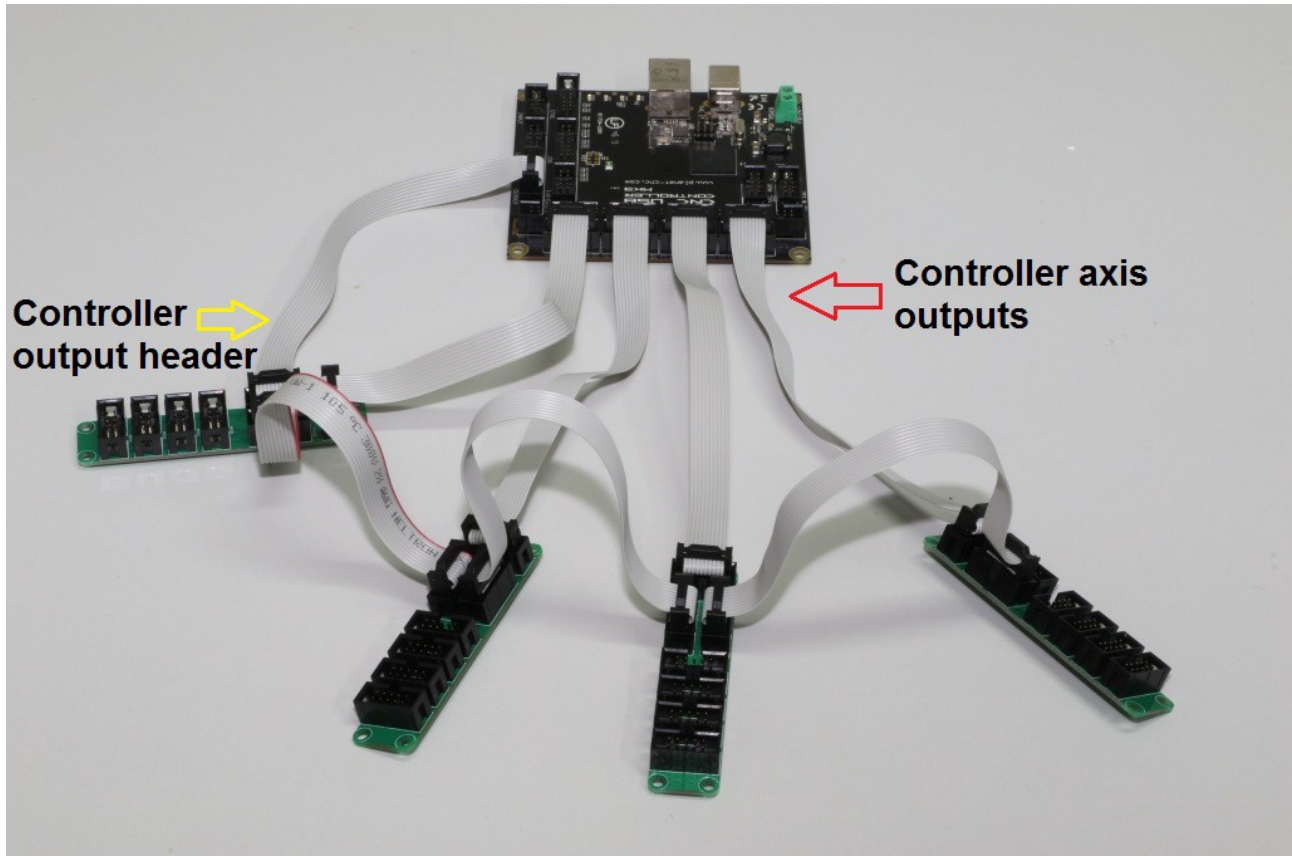
Outi	Outj	
0	0	Axis output 1
0	1	Axis output 2
1	0	Axis output 3
1	1	Axis output 4

Outi and Outj can be any output pins from 1–8.

Connection of demux board with controller:

Each Demux board is connected with controller via axis header using 10pin flat cable.

Output header is connected only to first demux board, each additional demux board is connected with previous demux board using daisy chain connection:

Picture below demonstrates connection of 8 motors using 2 controller axis outputs and 2 demux boards: