

How to modify the foam cutter to drive a CNC machine.

This document describes how to modify the FoamLinx board to drive an XYZ table.

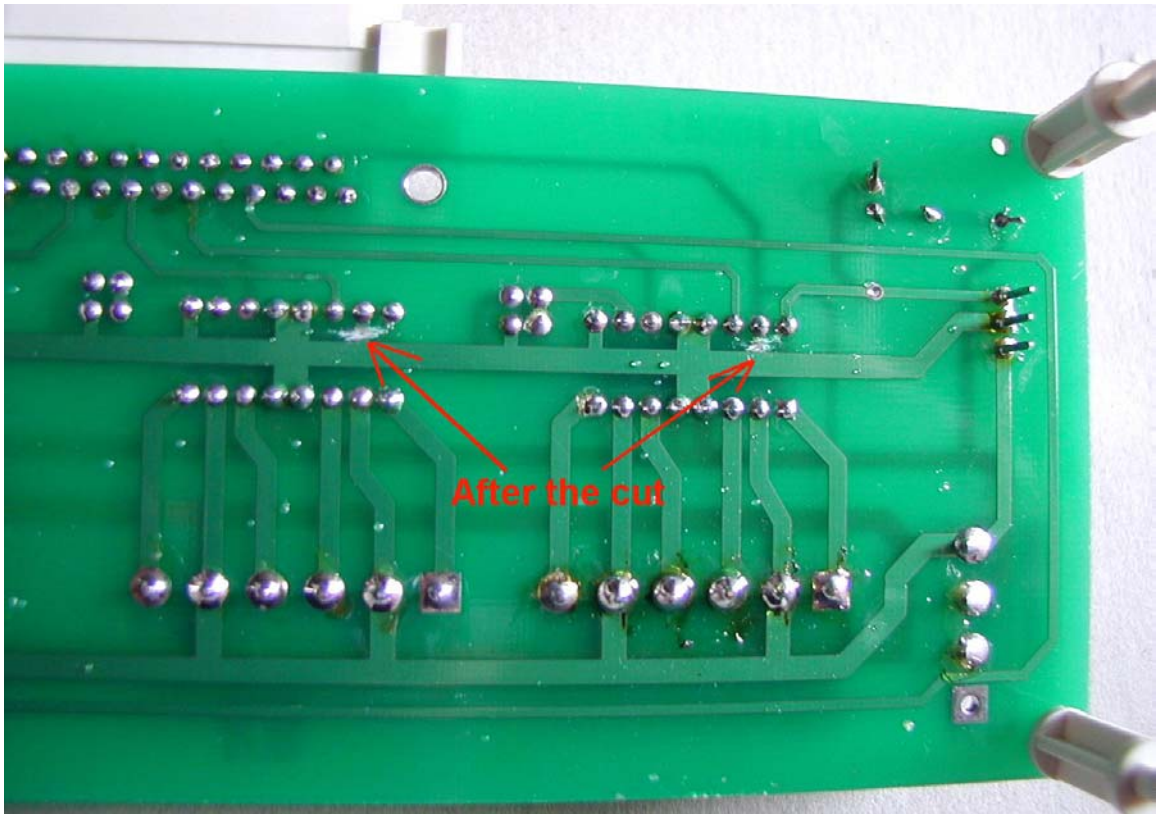
This modification was only tested with the software from KellyWare. This software can be found at www.kellyware.com

Please note that this modification will void the warranty on the board you are doing this at you own risk.

Locate pins 15 on each of the 4 stepper motor driver chips (on the solder side)

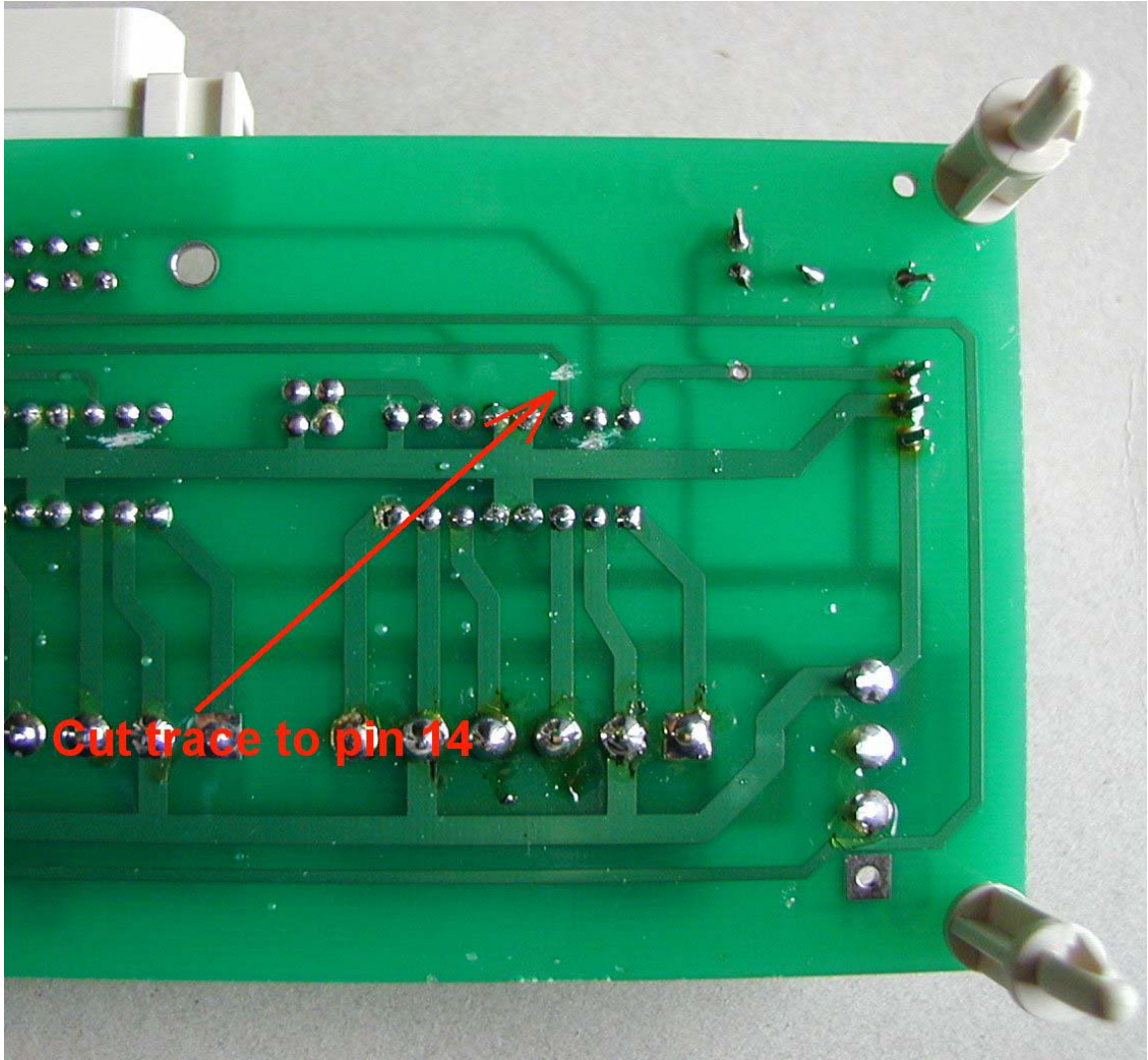


With a sharp Exacto knife cut two parallel cuts on the trace, and remove the copper. By doing this you have just disconnected pin 15 from the chip.



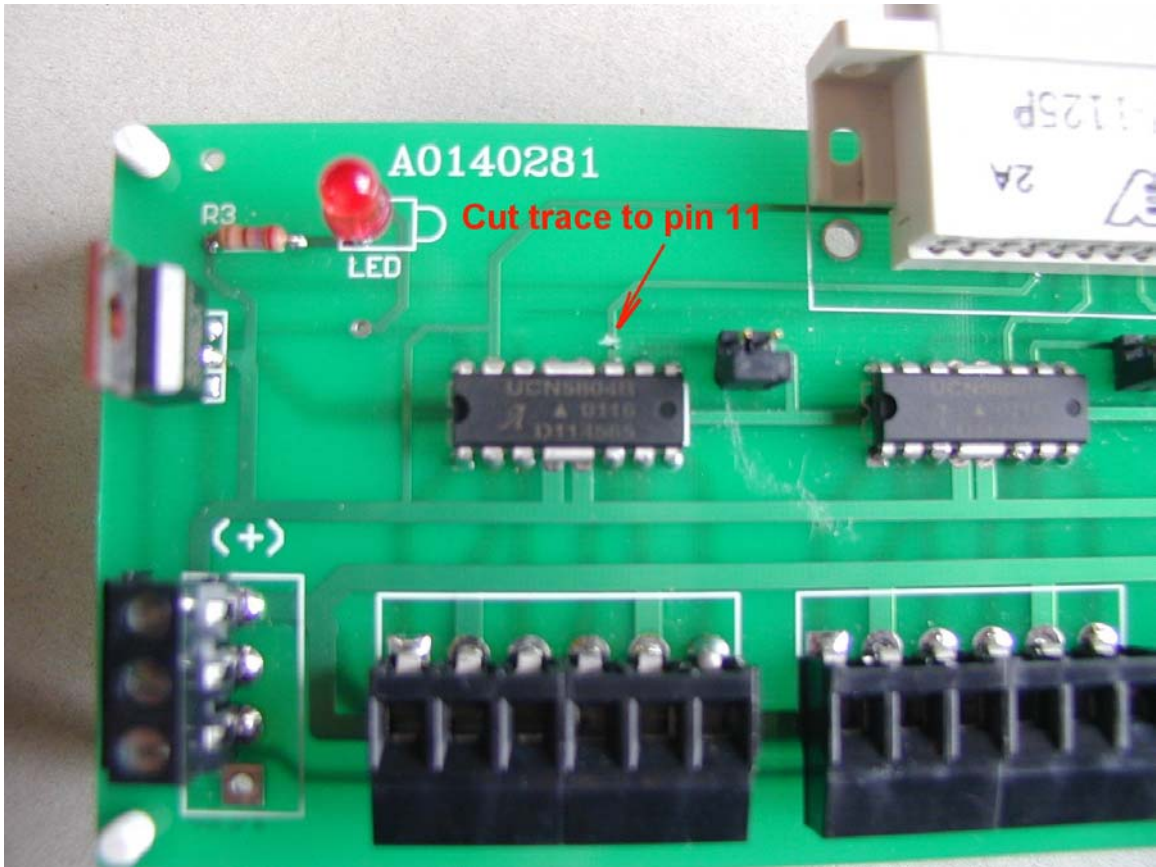
Pin 15 is the enable pin, and is used to enable/disable the motors.

Locate pin 14 on the chip closest to the power connector and cut out the trace as described above.



This motor will not be used (the one closest to the power connector)

The motor closest to the Power connector will not be used

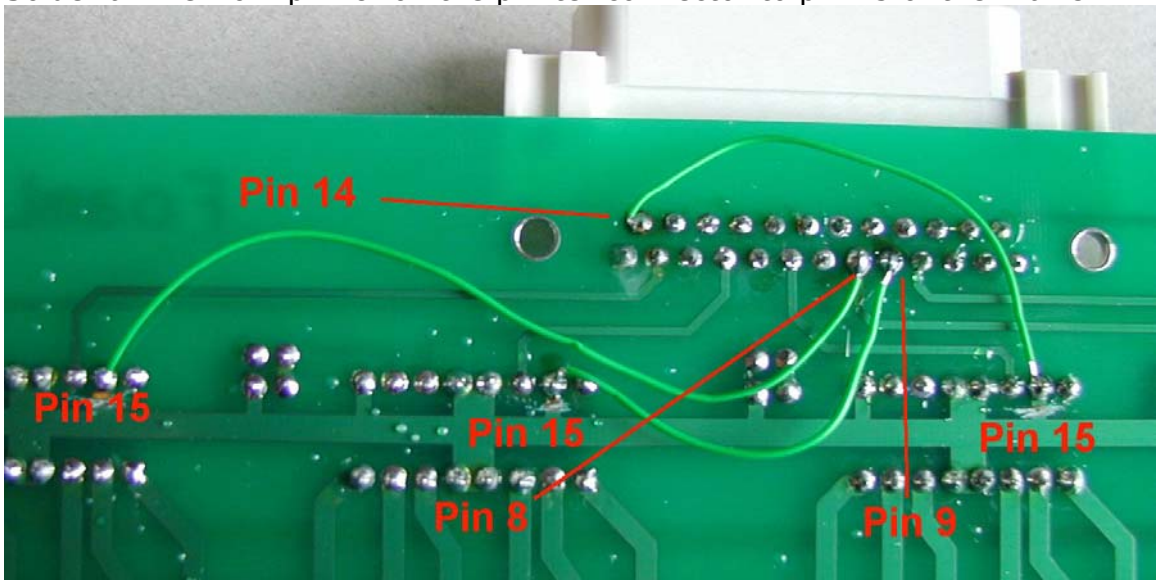


Flip the board over to the solder side.

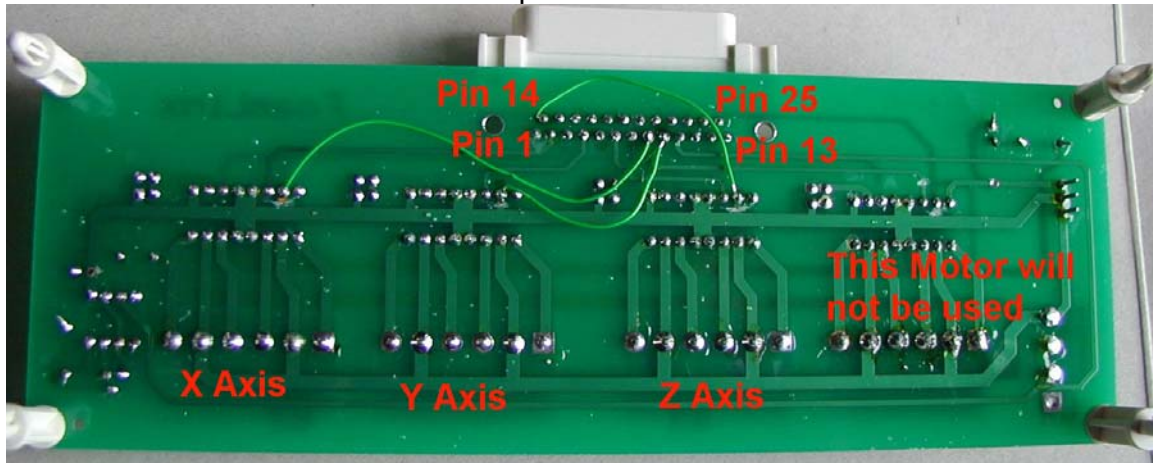
Solder a wire from pin 14 on the printer connector to pin 15 of the Z axis

Solder a wire from pin 9 on the printer connector to pin 15 of the Y axis

Solder a wire from pin 8 on the printer connector to pin 15 of the Z axis



Note that the motor closest to the power connector will not be used



How to configure the software:

In the "Port Setup"

Set X step -> Port 378 -> Bit1 -> Inverted=False

Set X direction -> Port 378 -> Bit0 -> Inverted=False

Set X enable -> Port 378 -> Bit6 -> Inverted=True

Set Y step -> Port 378 -> Bit3 -> Inverted=False

Set Y direction -> Port 378 -> Bit2 -> Inverted=False

Set Y enable -> Port 378 -> Bit7 -> Inverted=True

Set Z step -> Port 378 -> Bit5 -> Inverted=False

Set Z direction -> Port 378 -> Bit4 -> Inverted=False

Set Z enable -> Port 37A -> Bit1 -> Inverted=False

**Good luck and always be careful when
! working with motorized equipment !**