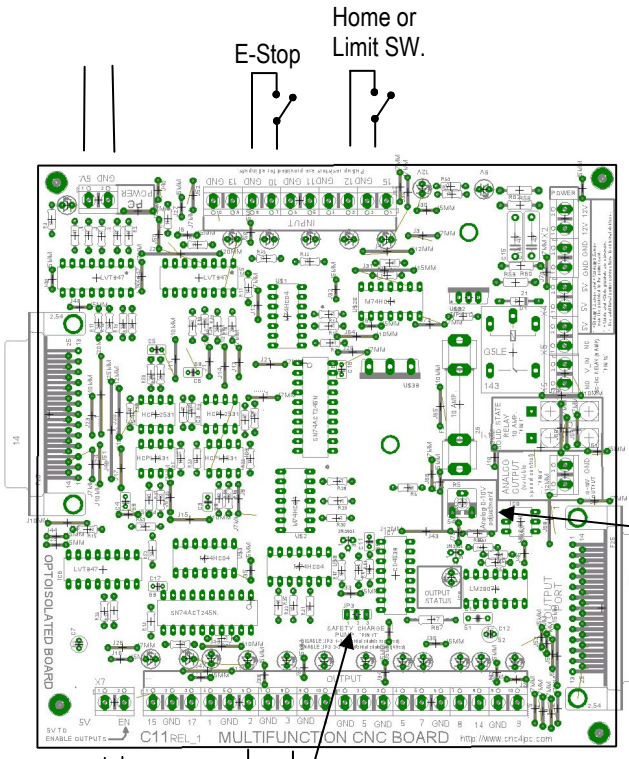
MULTIFUNCTION CNC BOARD
WIRING GUIDE
C11 Rel 1

Provide +5 and ground from your computer
You can use the provided USB cable to draw current from your USB port, or you can connect directly to your computer's power supply.

This board requires a total of 3 power sources.

1. +5vdc to power the optoisolator part of the circuit that interacts with the computer. You can take this power from the USB port or computer's power supply.
2. +5vdc @ 2 amps to power your cnc circuit. If you connect this source or grounds with the current from your computer, you will loose the optical isolation.
3. +12vdc @ 300 milliamps to power some components of the cnc circuit. This ground and the ground the 5 volts that power the cnc side of the circuit are common.



This board comes with additional power pins in case you need to take current to power other devices, such as Geckos.

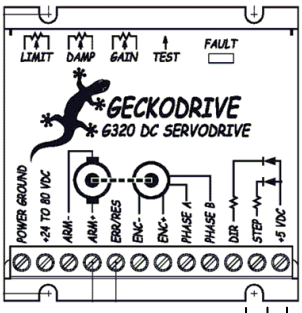
8 AMP MECHANICAL RELAY

8 AMP A/C SOLID STATE RELAY

Analog 0-10vdc output.

Adjustment pot for fine tuning the analog signal.

To External devices.
Optoisolated output and input signals.



You can use the built in safety charge pump circuit as a means to enable the output pins by placing the jumper in the 2-3 position. The board will enable outputs when you send a 12.5khz pulse through pin 17. You can install your own circuit or switch by placing jumper in the 1-2 position and have your circuit or switch provide +5 to the EN pin. If you want your outputs enabled at all times, place jumper in 1-2 position and hardwire the EN pin with +5.

NOTES:
1.All inputs and outputs are provided with pull-down resistors.
2. If you need to connect a device that outputs more than 5vdc, you can use a resistor to limit the current. Use the following resistor values:
10 vdc - 1 MOhm
12 vdc - 1.5 MOhm
24 vdc - 3.9 MOhm.
To use these resistor values your card must be powered with 5vdc. If you are powering your board with a different voltage unexpected results can happen., including damage of the board.

This card must be powered on both sides while your system is under power. Keep in mind noise can be transmitted into output signals that could trigger unwanted actions in your system.

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