# EPO

NOTE: The light blue wires on the drawing below that come from the EPO switch are wired to the breakout board.

The EPO switch has two sets of contacts. One controls power to the power supply. The second goes to the breakout board.

NOTE: The EPO switch does not control the power to the breakout board or the fan. The power to the breakout board and the fan is controlled by the ON/OFF switch.
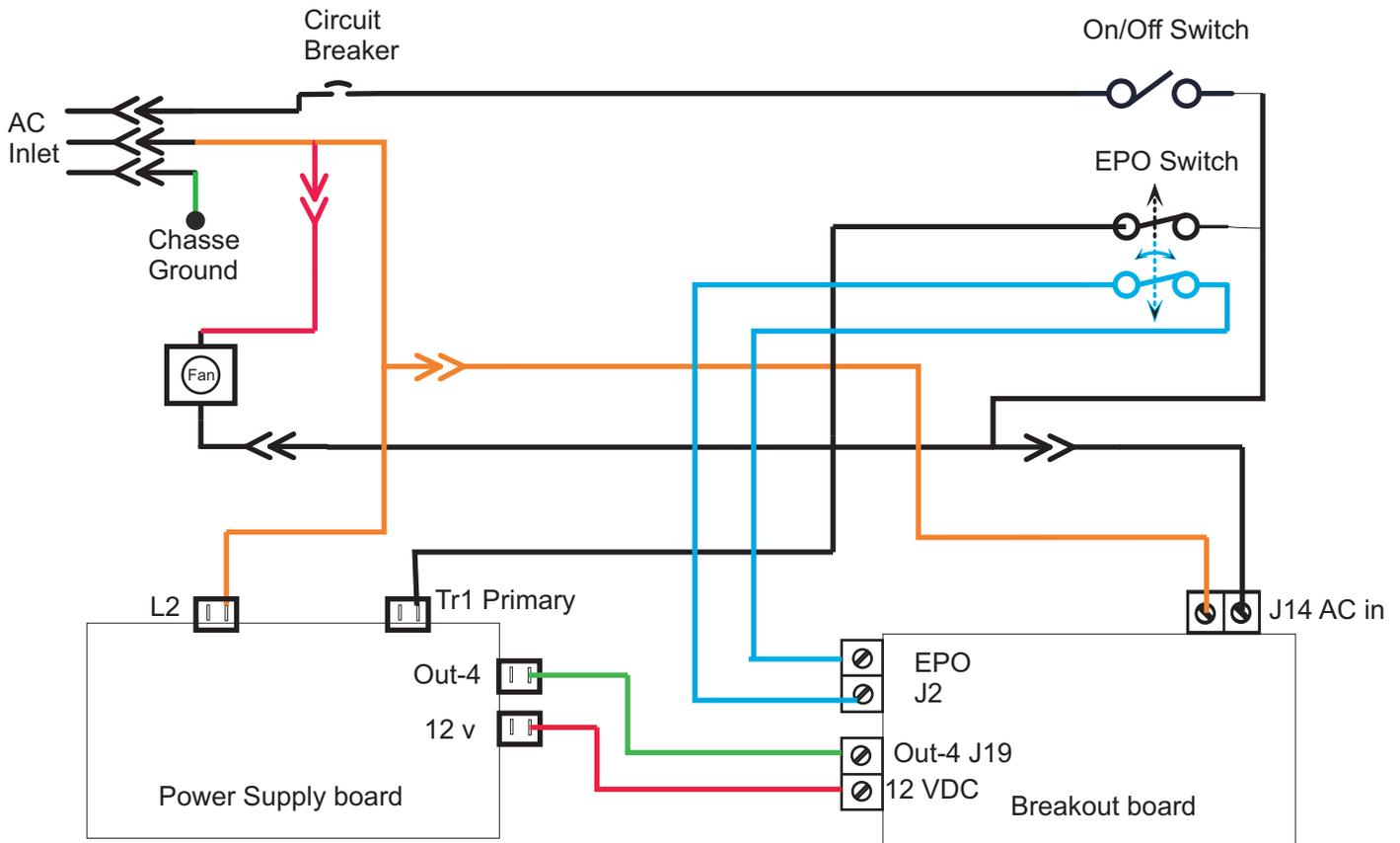
Wire a pair of wires from the EPO connection on the breakout board to the second (Unused) EPO switch.

NOTE: We use two sets of contacts on the EPO switch. One set is used to turn power off to the power supply. The second set of contacts is connected to the breakout board.

With Mach3 and our breakout boards, the EPO contact does several function. First of all it goes through the small relay on the board to pin 10 on the parallel port to inform Mach3 that the EPO button has been pressed. At the same time it drops the 5 volts to the Gecko drives. When the Gecko drive loses the five volts it will not see any more step and direction signals, in effect it will stop the stepper motors.

When Mach3 sees the EPO switch it will stop sending out the charge pump signals. Once the breakout board stops seeing the charge pump signals, it will drop all outputs and inhibit the inputs to the Gecko drives.