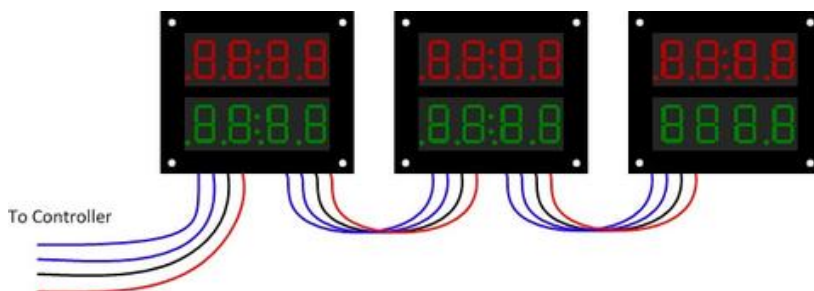


Add On Modules

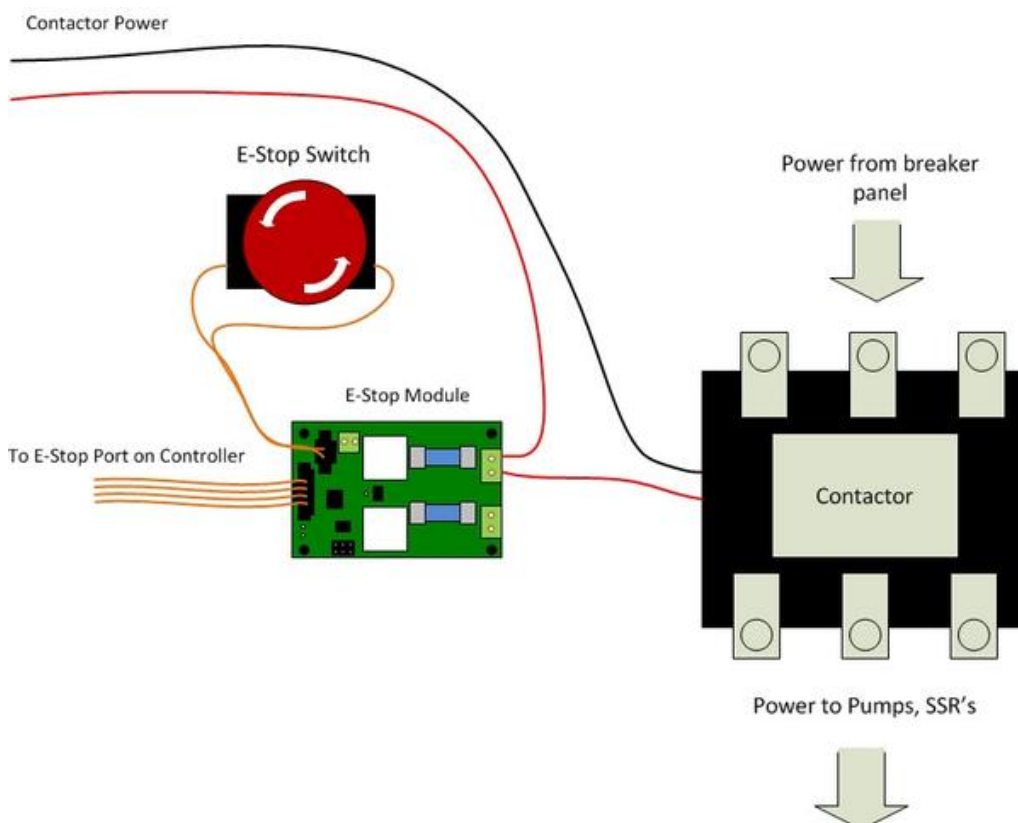
PID Display

Optional PID Display Modules can be used to display certain system values using large, bright LED displays. PID displays are most often used to show a specific vessels current temperature and setpoint. These modules can also be used to show current and target volume for a vessel or the Mash and Boil timer values. PID displays are available from BrewersHardware.com



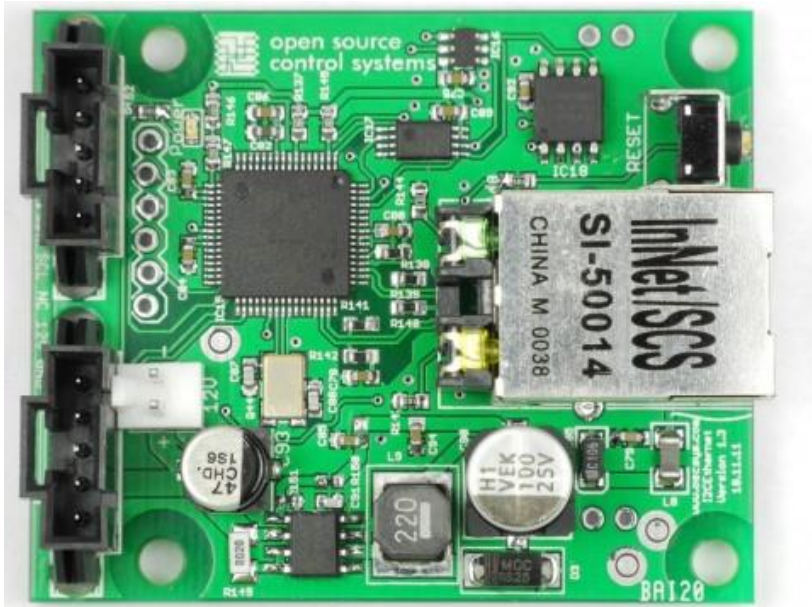
E-Stop (available soon)

E-Stop functionality can be enabled using a switch connected directly to a digital input however additional protection is provided when using the optional E-Stop module. The E-Stop module can be used to control contactors to cut-off supply voltages to output devices. In this way an E-Stop event is not dependent on the OpenTroller to disable outputs. The E-Stop module also serves as a system watchdog which is able to automatically trigger an E-Stop if the BrewTroller heartbeat fails. The E-Stop module is supported only by the OpenTroller DX1 and existing BrewTroller 4.0 Pro controllers.



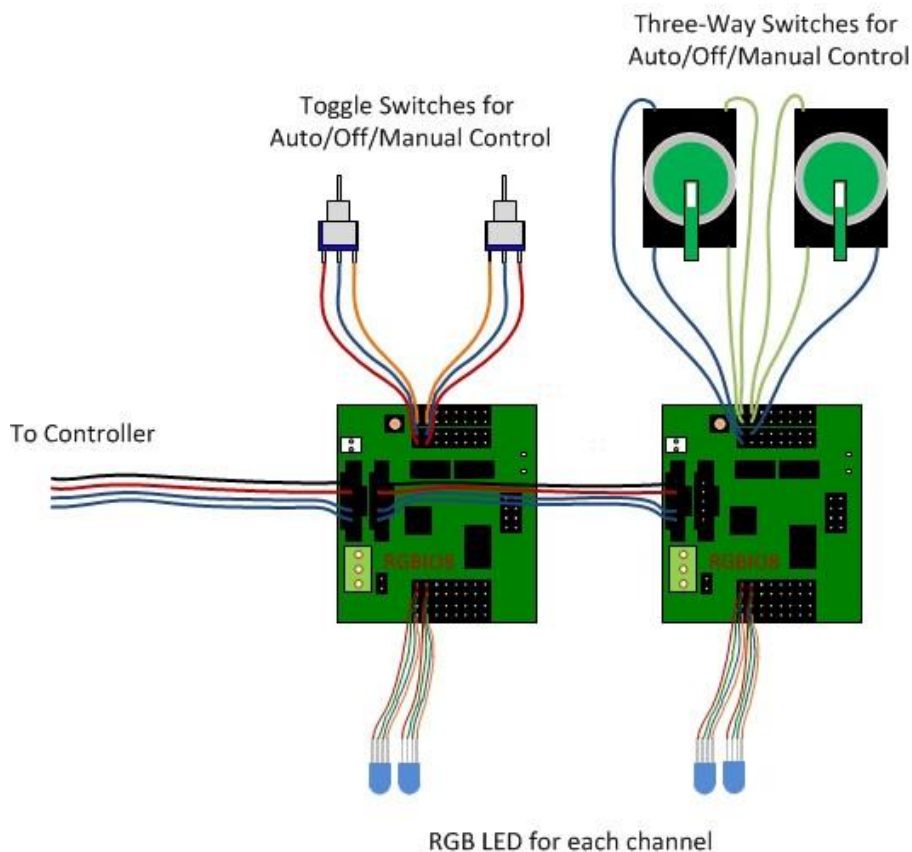
Ethernet (not currently available for purchase)

The BrewTroller BX2 supports an optional Ethernet module. The Ethernet module is embedded in the BrewTroller DX2 controller. BrewTroller supports remote control of most settings and functionality through the BTnic protocol. The Ethernet module provides a web service that can be used by third-party applications and web interfaces to augment or replace the standard character LCD user interface. BrewTroller Web App is our supported web based interface



RGBIO8

This module allows you to have RGB LEDs show the status of 8 heat or Pump/Valve outputs and switches to override the output state On or Off. You can connect multiple modules to expand the total number of outputs you want to control. Each channel provides the four terminal connections for a common anode RGB LED and four terminals (auto, manual and two commons) for connecting a 3 position toggle, or similar switch. RGBIO Boards are currently available from Widgeneering.com



By default, BrewTroller is configured to use the first sets of inputs and outputs on the RGB boards for heat outputs and then any remaining sets that are available for pump/valve outputs. For instance, if you have 3 heat outputs and 1 RGB board, the RGB board will have it's inputs and outputs set up like this:

- RGB Board 1, Input/Output 0 = Heat Output 0 (HLT)
- RGB Board 1, Input/Output 1 = Heat Output 1 (Mash)
- RGB Board 1, Input/Output 2 = Heat Output 2 (Boil)
- RGB Board 1, Input/Output 3 = PV Output 0
- RGB Board 1, Input/Output 4 = PV Output 1
- RGB Board 1, Input/Output 5 = PV Output 2
- RGB Board 1, Input/Output 6 = PV Output 3
- RGB Board 1, Input/Output 7 = PV Output 4

Adding a second RGB board would add the following mappings:

- RGB Board 2, Input/Output 0 = PV Output 5
- RGB Board 2, Input/Output 1 = PV Output 6
- RGB Board 2, Input/Output 2 = PV Output 7
- RGB Board 2, Input/Output 3 = PV Output 8
- RGB Board 2, Input/Output 4 = PV Output 9
- RGB Board 2, Input/Output 5 = PV Output A
- RGB Board 2, Input/Output 6 = PV Output B
- RGB Board 2, Input/Output 7 = PV Output C

And finally, adding a third RGB board would add:

- RGB Board 3, Input/Output 0 = PV Output D
- RGB Board 3, Input/Output 0 = PV Output E
- RGB Board 3, Input/Output 0 = PV Output F
- RGB Board 3, Input/Output 0 = PV Output G
- RGB Board 3, Input/Output 0 = PV Output H
- RGB Board 3, Input/Output 0 = PV Output I
- RGB Board 3, Input/Output 0 = PV Output J
- RGB Board 3, Input/Output 0 = PV Output K

