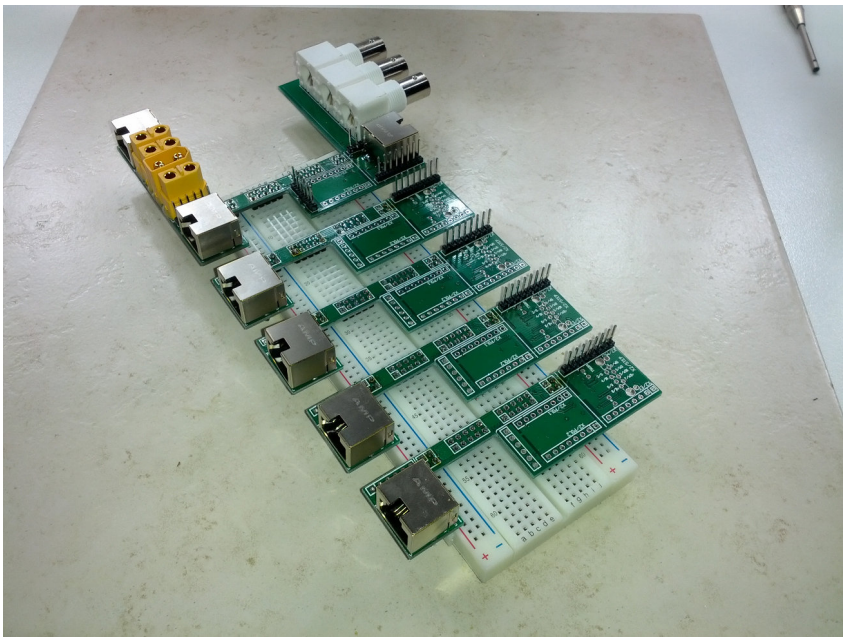

GenericIO (Limit Switch, Depth Probe, Extruder, Stepper Driver, Radio)

```
3 / 1 - Vsys/Vcc
3 \ 2 - pGND/sGnd
2 - 3 - Vext/Vmid/Avcc/SigAlt   (NC)                                    (LO)
1 / 4 - Sig-/SigTx-             (sGND)              (Dir)       (I2C, UART)
1 \ 5 - Sig+/SigTx+             (COM,ANA,Probe)     (Step)      (I2C, UART) (IF)
2 - 6 - sGND                    (NO)
4 / 7 - PWMalternate/SigRx+     (Control, Servo, Heater)        (I2C,UART)  (RF)
4 \ 8 - PWMdirect/SigRx-        (Fan)                           (I2C,UART)
```

DigitalIO (Display, SDCard, SPI)

```
3 / 1 - A0
3 \ 2 - dRST
2 - 3 - Vext
1 / 4 - MOSI            (I2C, UART)
1 \ 5 - MISO            (I2C, UART)
2 - 6 - pGND
4 / 7 - SCK             (I2C, UART)
4 \ 8 - CS
```

Steppers (Stepper Motor)

```
3 / 1 - Vsys
3 \ 2 - pGND
```

```
2 - 3 - B+      Fwd(2A/Blue/Red)        Rev(1A/Green/Blue)
1 / 4 - A+      Fwd(1A/Green/Blue)      Rev(2A/Blue/Red)
1 \ 5 - A-      Fwd(1B/Black/Yellow)    Rev(2B/Red/White)
2 - 6 - B-      Fwd(2B/Red/White)       Rev(1B/Black/Yellow)
4 / 7 - B+      Fwd(2A/Blue/Red)*       Rev(1A/Green/Blue)*
4 \ 8 - B-      Fwd(2B/Red/White)*      Rev(1B/Black/Yellow)*
```

LinearPSU

```
3 / 1 - 5V
3 \ 2 - Vee
2 - 3 - Vcc
1 / 4 - GND
1 \ 5 - Vee
2 - 6 - Vee
4 / 7 - 3.3V
4 \ 8 - Vee
```

See https://github.com/mirage335/LinearPSU/blob/master/Photo.jpg .

Ratings

Please beware the following ratings.

- Vext is intended as logic power, and must never exceed 5.5V. Recommend 3.3V||5V depending on system needs.
- Vext may be used as a diode (eg. CDBU0530) OR-gated power bus if all connected devices can operate at 2.8V-5V.
- Vmid/Avcc are alternate uses for the Vext line, and may exceed 5.5V as appropriate.
- Vsys is intended for high-power delivery, and may be any voltage all attached devices are configured to tolerate. Recommend 12V||24V.
- Ground-referenced voltage (ie. wall current) should only be considered for Vsys. Earth-ground and neutral may be bound to pGND/sGND.
- Maximum current into an RJ45 socket or breadboard is typically around 3A/pin. Consider using high-quality header/jumpers, and redundant pins, as appropriate.
- Voltage drops can be significant, especially across pGND/sGND. Take care to follow star-toplogy grounding to the greatest extent possible when accuracy counts.
- Rough changes to voltages can be made (eg. for fans) by high-power zener diodes (ie. 863-1N5919BG).
- Pins 7/8 of GenericIO may be repurposed for digital I2C/UART if needed, specifically for digital control of stepper driver.