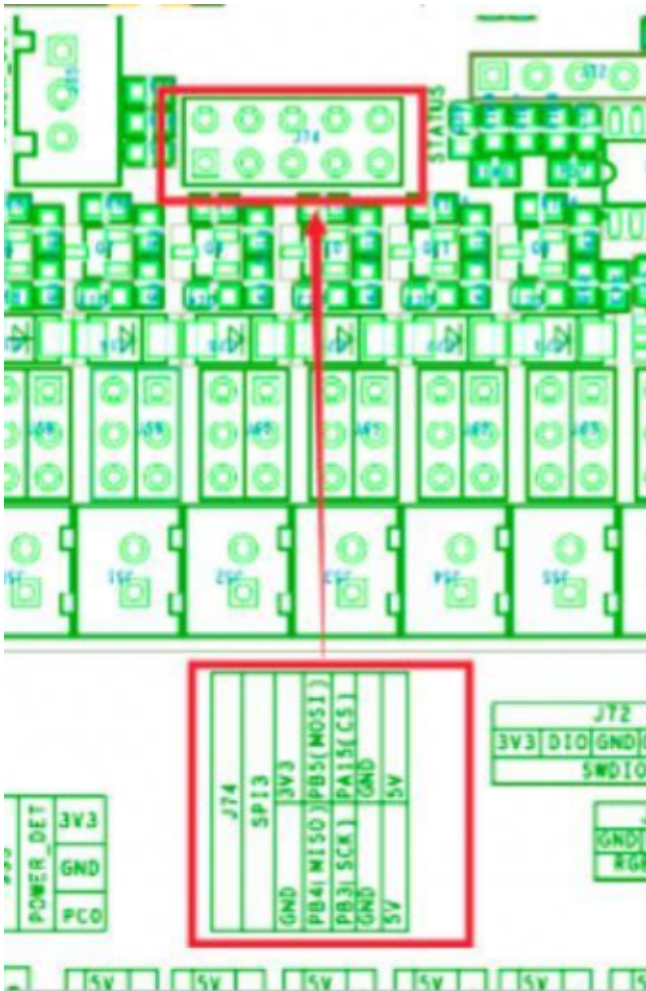


ADXL345 Accelerometer

The ADXL345 is a 3-axis accelerometer IC with built-in support from [Klipper](#) for calibrating the input shaping. It can communicate via both I²C and SPI, but the latter is generally recommended. The [Octopus board](#) has a header for SPI which makes configuration far easier as a second Klipper instance is required to use the [Raspberry Pi](#)'s SPI pins. Because SPI is not designed for signal integrity, it becomes a problem when connected with long wires and surrounded by the EMI from large stepper motors. To address this, the ADXL is connected via a length of CAT5 Ethernet wire as recommended by the [Klipper documentation](#). While SPI does not use a differential signal and so the benefits of using twisted-pair Ethernet wire are limited, it still made communication much more reliable than our first attempt using plain stranded wire.



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