



SparkFun Frequency Counter Kit

KIT-10140 ROHS ✓



Description: This new revision includes a JST cable and also fixes the TX/RX swap from the last revision. Now you can use an FTDI correctly. We are also including a 16-pin header instead of a 40-pin header (only 16 pins are necessary).

This kit is a re-hash of Nuxie's FunCount frequency counting kit. It includes everything you need to build a frequency counter capable of measuring frequencies from 1Hz to over 6MHz. The measured frequency is displayed on a 16x2 black on green LCD.

Our new design is based on the popular ATmega328. The ATmega comes pre-programmed with both the frequency counting firmware, and a serial bootloader, so you can program it as you would an Arduino. If you want to program it via Arduino, you'll need a FTDI Basic Breakout. Unused pins of the ATmega328 are broken out for all your custom firmware desires.

The ATmega328 runs at 16MHz, and should be able to reliably count frequencies up to around 6.4MHz (assuming a 50% duty cycle). Voltage supplied to the kit should be 5VDC. The voltage input on the frequency pin should not exceed the supplied voltage, and should not go below 0V.

The kit includes a 3-pin JST male connector, so you can use this wire to deliver +5V, ground and the frequency signal to the Counter. You'll also be able to piggy-back the counter onto our Function Generator Kit (see below).