

# PropStick USB (#32210)

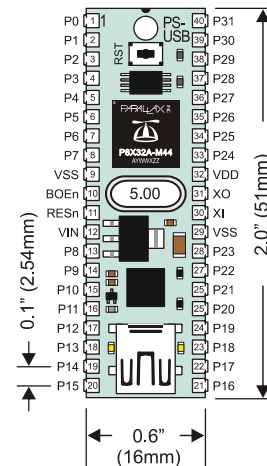
## P8X32A Module with USB Programming Port

### Introduction

The PropStick USB is a complete Propeller development tool with a convenient built-in USB programming interface. The PropStick USB module comes fully assembled, and is pin and code-compatible with the PropStick Kit (#32310), a build-it-yourself version with a serial programming interface. The PropStick USB includes the USB A to Mini-B Retractable Cable (#805-00010).

The PropStick USB has the following features:

- P8X32A-M44 microcontroller
- 32 KB EEPROM
- 3.3 V regulator with power and ground connections
- 5 MHz removable crystal
- Reset button
- FTDI 232R USB interface with red and blue LEDs for transmit/receive activity
- 600-mil wide 40-pin footprint, modeled after the P8X32A-D40
- USB A to Mini-B Retractable Cable included



The PropStick USB is suitable for all new Propeller-based designs, whether prototype or production. PropStick USB mounting possibilities include breadboard, perfboard with wire-wrap, or in a 600 mil 40-pin socket soldered to a PCB.

The PropStick USB was closely modeled after the P8X32A-D40, the DIP format Propeller chip. There are only three places where the PropStick USB varies from the P8X32A-D40 in pin assignments:

- Pin 10 (BOEn) is tied to VSS, permanently enabling the brown-out detector.
- Pin 12 (Vin) is the input to the onboard regulator and should be supplied with 5-9 VDC.
- Pin 32 (Vdd) is the output of the regulator and provides 400 mA of 3.3 VDC to power the Propeller circuit and your projects. Alternatively, the on-board regulator may be bypassed by connecting an externally regulated 3.3 VDC to Vdd.

**NOTE:** The PropStick USB is not for use in 40-pin BASIC Stamp boards made by Parallax (as in the Professional Development Board or BS2p40 Demo Board). Due to the PropStick USB's 3.3V power supply and separate built-in USB programming port, its voltages and pin assignments are not compatible with the BS2p40.

## PC Drivers Installation

The PropStick USB requires FTDI USB drivers. If you install the Propeller IDE, these drivers for Windows 2000/XP install automatically. To install these drivers separately, visit [www.parallax.com](http://www.parallax.com) and follow the USB Driver installation steps as shown below; there is a link to troubleshooting instructions if needed.

# Installing USB Drivers

**step 1** Download  
*'Parallax USB Driver Installer'*

Click  
Here to  
Download

**step 2** Run the Installer  
*Follow the steps provided by the Wizard  
to install your hardware drivers.*



**step 3** Connect Your Hardware



## Sample Programs

Any program written for the Propeller will, of course, work with the PropStick USB. Sample programs for the PropStick USB can be downloaded from the product's webpage at [www.parallax.com](http://www.parallax.com).

# Schematic

