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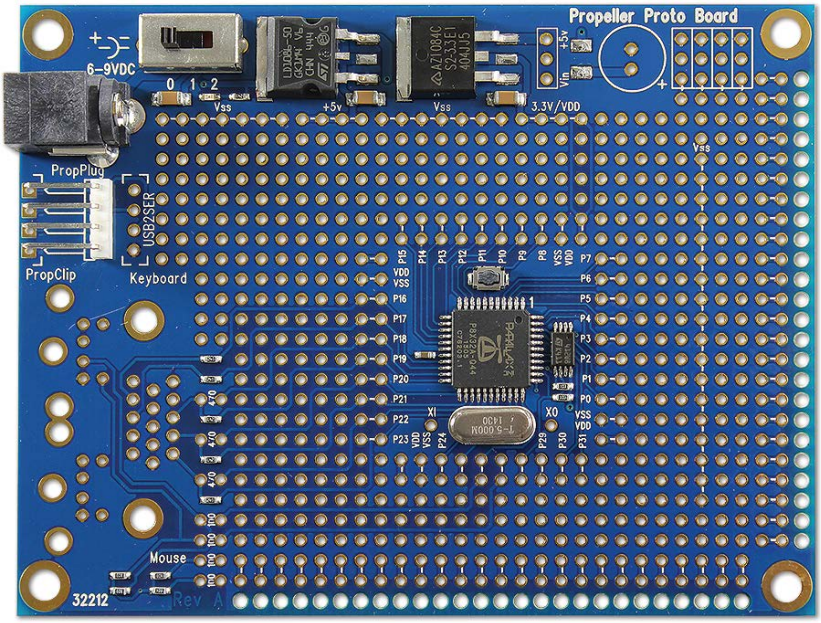
Propeller Proto Board (#32212)

The Propeller Proto Board is a low cost, high quality solution for permanent projects using the Propeller microcontroller. A Prop Plug (#32201, sold separately) is required for programming.



Features

- P8X32A-Q44 Propeller chip
- 64 KB EEPROM for program and data storage
- 5 V and 3.3 V regulators provide up to 1.5 Amps with an input power supply of 6-9 VDC
- Optional VGA, mouse and keyboard interface available in the Accessory Kit
- Three-position power switch (off, logic power, power to logic and servo ports)
- Sockets to solder in 4 servo headers
- Removable 5 MHz crystal
- Access to all 32 I/O pins
- Large prototyping area
- Unplated row of holes along perimeter to provide stress relief to off board connections

Key Specifications

- Power Requirements: 6-9 VDC; boards can source up to 1.5 A
- Communication Interface: 3.3 volt I/O
- Operating temperature: -40 to +176 °F (-40 to +80 °C)
- Dimensions: 3.05 x 4 in (7.75 x 10.6 cm)

Getting Started

The Propeller Proto Board includes a Propeller microcontroller, an EEPROM, a socketed 5 MHz crystal, a reset button, and power circuitry needed to program the board without any additional parts soldered in place.

Power

Power the Propeller Proto Board using a center positive power supply with an output between six and nine volts DC. A 300 mA or greater power supply will power the board itself, but if connecting accessories to the board, use a power supply with enough current to supply the Propeller Proto Board and the accessories.

The Prop Plug does not provide power, and the Propeller Proto Board will not run without an additional power supply.

Communications

Use a Prop Plug to connect the Propeller Proto Board to computer, and run the Propeller Tool or any other development environment capable of programming a Propeller microcontroller. Slide the power switch to the '1' position, and ensure that the green power LED illuminates. Follow the instructions for the development environment to load a program into the Propeller microcontroller.

Connections

I/O Pins

All Propeller I/O pins (P0 through P31) are available from two rows of solder points immediately surrounding the Propeller microcontroller. P28 and 29 are also connected to a 64 KB I2C EEPROM for storing a Propeller program up to 32 KB in size and an additional 32 KB for additional data. P30 and P31 are also connected to the Prop Plug header.

Power Connections

There are VSS, 3.3-volt, and 5-volt solder points along the top edge of the prototyping area, just below the power regulators. When the power switch is in the '1' position, it powers the 3.3-volt and 5-volt solder points, but does not power auxiliary power solder points. When the power switch is in the '2' position, it connects power to the auxiliary power solder points, labeled 'Vin' and '+5' and located to the right of the power regulators.

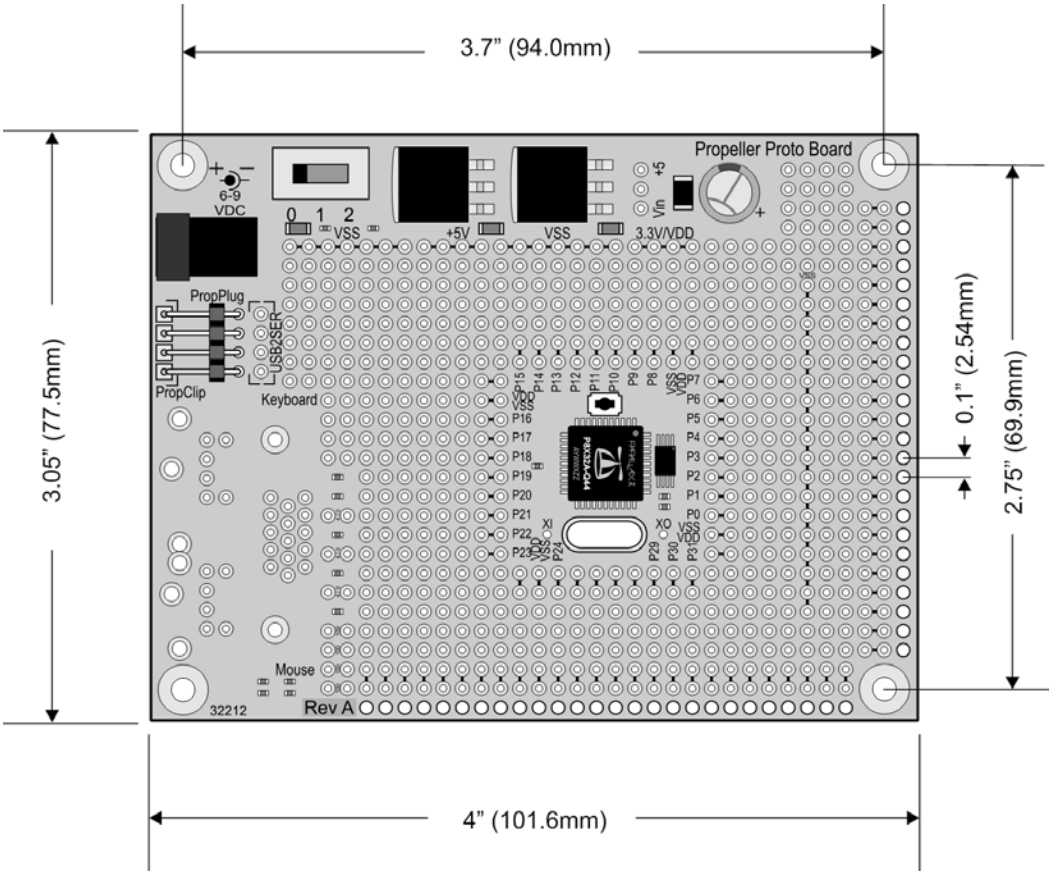
Vin draws power directly from the power supply. If using it, ensure that the power supply does not exceed the maximum voltage of the circuitry connected to Vin.

Accessory Kit

For VGA and PS/2 connections, see the Propeller Proto Board Accessory Kit, part number 130-32212.

Module Dimensions

Note: Boards manufactured 2015 or later do not have the capacitor and inductor components populating the servo interface circuit.



Revision History

Version 2.0: Supports boards manufactured in 2015 and later; does not support related accessories directly.