



Baby Orangutan Robot Controller

Quick-Start Sheet

Overview

The Pololu Orangutan robot controller is a complete control solution for small robots. The small module includes a powerful Atmel mega48/168 microcontroller, two channels of bidirectional motor control, a potentiometer, eight analog-to-digital channels, and general-purpose digital I/O lines that can be used to expand the system. A battery, motors, and sensors can be connected directly to the module to create simple robots.

Contacting Pololu

You can check the Pololu web site at <http://www.pololu.com/> for additional information about the Baby Orangutan robot controller, including color pictures, application examples, and troubleshooting tips.

We would be delighted to hear from you about your project and about your experience with our product. You can contact us through our online feedback form or by email at support@pololu.com. Tell us what we did well, what we could improve, what you would like to see in the future, or anything else you would like to say!

Programming the Microcontroller

The Baby Orangutan is designed to be programmed using a 6-pin in-system programmer such as the AVRISP from Atmel. The six pads at the bottom of the board can be used for this purpose; pin 1 is indicated by a small arrow on the printed circuit board.

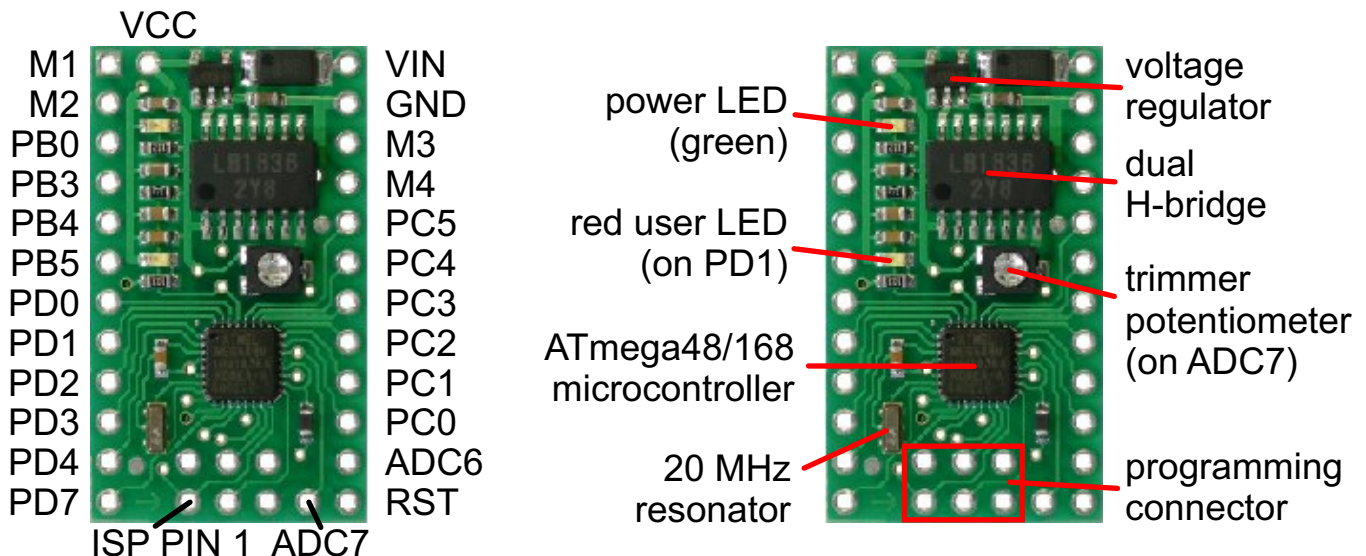
Schematic Diagram

The complete schematic for the system is shown on the back of this sheet. The basic schematic is identical to that of the larger Orangutan controller. Connections to a buzzer, LCD, and pushbutton switches should be made as indicated if you want to make a system compatible with the larger Orangutan. Please note that unlike the Orangutan, the resonator pins (PB6 and PB7) are not available for use as general-purpose I/O.

Minimal Connection

The Baby Orangutan will run with power applied across the VIN and GND pins. The supply voltage should be 5-10 volts, so a 5- to 8-cell NiCd or NiMH battery pack is a good choice. The reset pin can be brought low to reset the controller, but it can otherwise be left disconnected.

Module Pinout and Component Identification



Baby Orangutan Robot Controller Schematic Diagram

