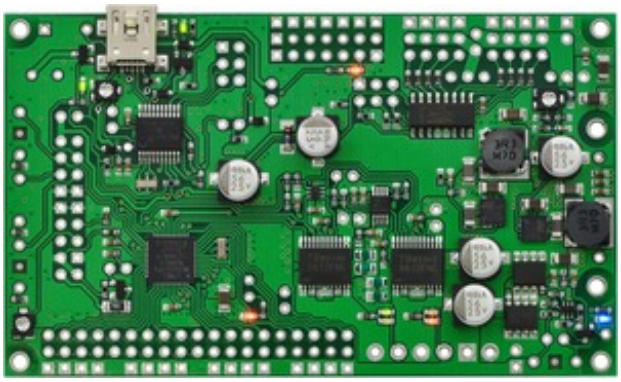
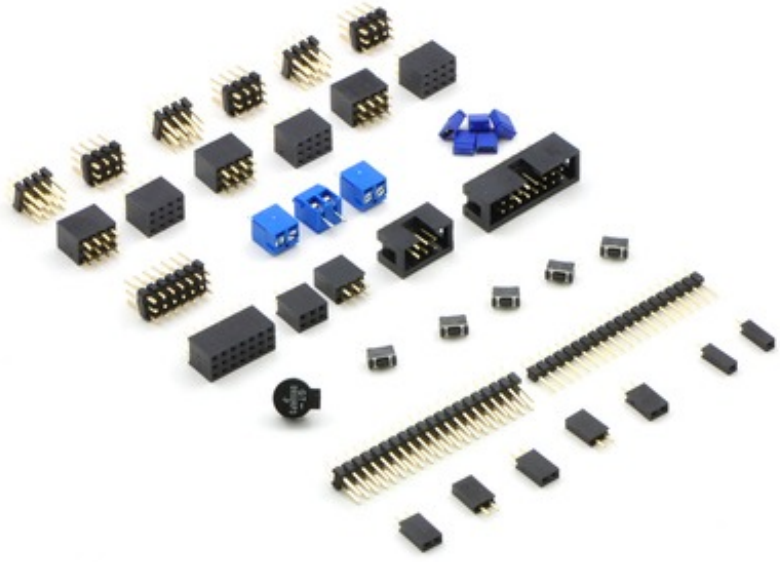
# Orangutan SVP-1284 Robot Controller (partial kit)

**Overview**



The Orangutan SVP robot controller is a complete control solution for small and medium-sized robots running at 6 – 13.5 V. The module is designed around the powerful Atmel ATmega324PA AVR microcontroller (32 KB flash, 2 KB RAM, and 1 KB EEPROM) or ATmega1284P (128 KB flash, 16 KB RAM, and 4 KB EEPROM) running at 20 MHz and features a full complement of peripheral hardware to support robotics applications. For a detailed description of the Orangutan SVP's capabilities, please see the product page for the fully assembled SVP-324 or fully assembled SVP-1284.

The Orangutan SVP partial kit PCB has all of the surface-mount components pre-soldered, as shown to the right, and the kit includes the following through-hole components so that you can customize the robot controller to your particular application:



- **Six 3×4 male header blocks**
- **Six 3×4 female header blocks**
- **One 3×7 male header block**
- **One 3×7 female header block**
- **Three 2-pin 3.5mm terminal blocks**
- **Five blue shorting blocks**
- **Two 2×3 female header blocks**

- **One 2×3 shrouded box header**
- **One 2×8 shrouded box header**
- **One buzzer**
- **Five pushbuttons**
- **One 2×20 breakaway male header**
- **One 1×20 breakaway male header**
- **Five 1×2 female header blocks**
- **Two single-pin female headers**

Like the fully assembled version, the kit includes a USB A to mini-B cable.

**LCD**
The Orangutan SVP partial kit does not include an LCD. Our 16×2 LCDs (both with backlight and without) can be plugged directly into the PCB if you solder a 2×7 female header to the left side of the LCD and two single male pins to the right side of the LCD. These two male pins provide structural support for the LCD and power the backlight on the version with a backlight. You can connect your own parallel-interface (HD44780) LCD, such as our 20×4 LCD to the LCD port via a 16-conductor rion cable.

**Customization**
Since the Orangutan SVP partial kit includes headers of both genders, you have the ability to solder in the gender that best suits the peripherals you plan to connect to the board, or you could go for an even more compact installation and solder your peripherals directly to the I/O pads. Since the buzzer and pushbuttons are not pre-soldered, you can replace these with components of your choosing, such louder speakers (the Orangutan SVP powers the buzzer through a transistor rather than a microcontroller I/O pin, so it can support much higher-power speakers than previous Orangutans) and bigger buttons located off of the board.

**Documentation on producer website.**