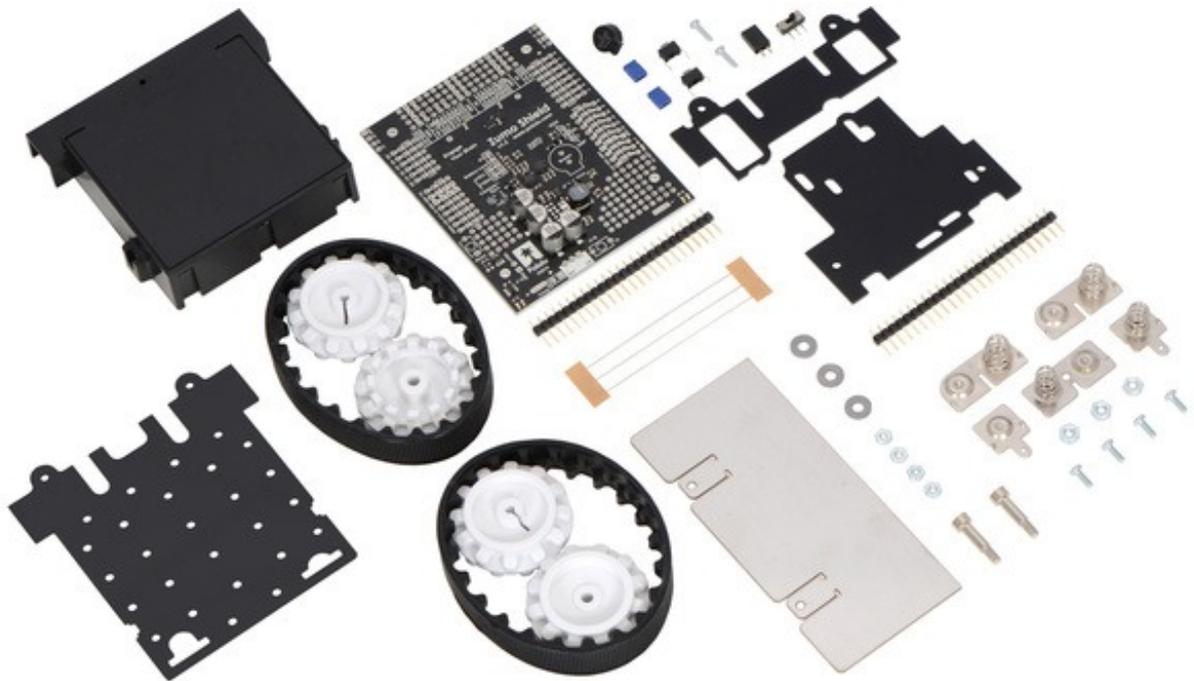


## Zumo Robot Kit for Arduino, v1.2 (No Motors)

Note: This product is a kit; assembly (including soldering) is required. Motors, batteries, and Arduino are sold separately. An assembled version is available that does not require any assembly or soldering and includes motors and a Zumo reflectance sensor array.

### Kit Contents

- One Zumo Shield for Arduino, v1.2
- One Zumo chassis kit
- One Zumo blade



Contents of the Zumo robot kit for Arduino, v1.2.

Please see the specific pages for those products for more information about them, assembly instructions, and links to related resources. The only difference between this and the previous Zumo Robot kit version is the inclusion of a v1.2 Zumo shield in place of the previous shield version. The only changes to the shield are an upgrade of the integrated accelerometer/magnetometer IC and the addition of a 3-axis gyroscope.



Zumo Robot for Arduino, v1.2.



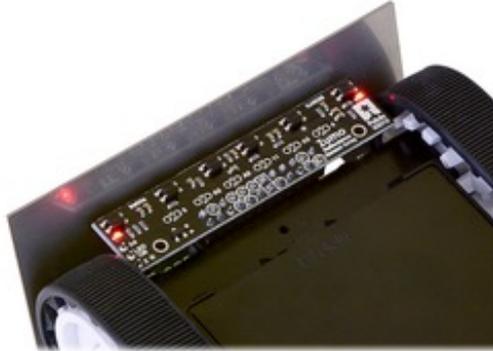
Zumo chassis being assembled with two micro metal gearmotors.

#### Required Accessories (not included)

- **Two micro metal gearmotors.** These gearmotors are available in several power options and a wide variety of gear ratios, allowing for a customizable combination of torque and speed. The Zumo Shield can deliver enough power for all of the micro metal gearmotors we carry, including the high-power (HP) versions. Note that some gear ratios are better suited for the Zumo than others; please see the Zumo chassis kit product page for specific motor suggestions.
- **Four AA batteries.** The Zumo chassis works with both alkaline and NiMH batteries, though we recommend rechargeable NiMH cells.
- **An Arduino.** The Zumo Shield works with both the Uno and the Leonardo. It is not

compatible with the Arduino Mega or Due, but it can be used with older Arduinos that have the same form factor as the Uno, such as the Duemilanove. (Other Arduino-compatible controllers might work with the Zumo robot, but support for them will be limited and they might require modification; for example, one customer got his Zumo robot working with the Freescale FRDM-KL25Z board.)

## Optional Accessories



Zumo reflectance sensor array on a Zumo robot, bottom view.

- **Zumo reflectance sensor array.** This sensor bar mounts along the front edge of the Zumo shield and allows the Zumo to detect features on the ground in front of it, such as lines for following or edges for avoiding (such as the rim of a sumo ring or the edge of a table). It is designed specifically for use with the Zumo shield.
- **iMAX-B6AC battery charger** for charging the Zumo's battery's through the Zumo Shield's 2-pin charge port. Note that you only need a battery charger if you plan on powering the Zumo with rechargeable cells, and that charger should be capable of charging 4 NiMH cells in series. Alternatively, since the Zumo just uses ordinary AA batteries, you can use AA chargers (into which you stick the individual cells) available at most general electronics stores.
- **Optical rangefinders** for obstacle/opponent detection.
- **Connectors** (headers, jumper wires, etc) for adding more sensors.

[Documentation on producer website.](#)