

Ambassador Workshop Kit Catalog

2025

DigiKey



5 Volt Regulator Power Supply Kit

The kit is a 5 volt, voltage regulator. Students can use the 5V regulator as a voltage source to down convert to lower voltage levels to power projects. You will learn soldering, voltage regulators, basic power management principles.

Project ideas

- Power supply for any project

Parts needed

- Soldering kit and pen

Level

- Beginner

Workshop size

- 10 - 20

Parts included

- 0.1 μF $\pm 10\%$ 50V Ceramic Capacitor X7R Radial
- 0.33 μF $\pm 10\%$ 50V Ceramic Capacitor X7R Radial
- Linear Voltage Regulator IC Positive Fixed 1 Output 100mA TO-92-3
- Solderable Breadboard

Schematic and BOM



DigiKey Standard Learn to Solder Kit

The through-hole variant is an outstanding option for novices looking to master basic soldering techniques. It includes components with leads that penetrate the circuit board, providing a hands-on opportunity to learn and practice essential skills.

Parts needed

- Soldering station and pen

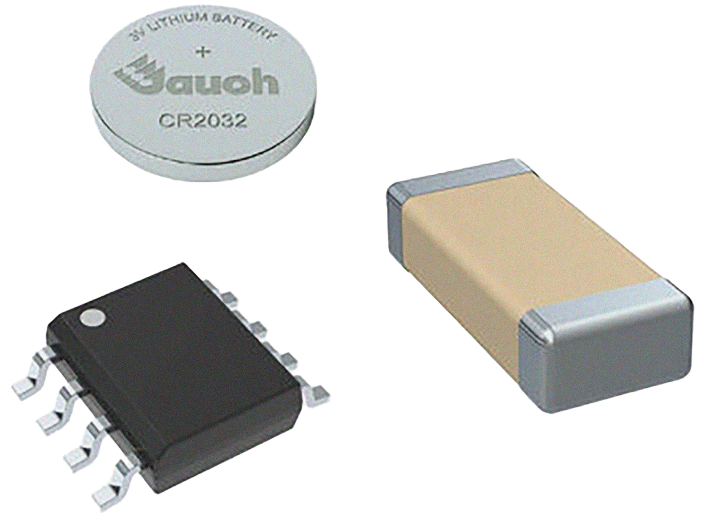
Level

- Beginner

Workshop size

- 20+

Additional resources



Parts included

- Battery Lithium 3V Coin 20mm
- CAP CER 0.1UF 50V X7R 1206
- IC OSC SGL Timer 2.1MHZ 8-SOIC
- RES 1.69K ohm 1% 1/16W 0402
- RES 510 ohm 5% 1/4W 1206
- LED WHITE CLEAR 0805 SMD
- RES 590 ohm 1% 1/10W 0603
- LED Green Clear 0402 SMD
- RES 43 ohm 1% 1/8W 0805
- RES 3.3M ohm 1% 1/4W 1206
- LED Orange-red Clear 1206 SMD
- LED Orange Clear Chip SMD

ADI Red Pitaya Op Amp Experimenter

Build your own. These boards are available pre-built with components, or can be ordered and soldered on site for an additional exercise.

Parts needed

- OP amp board
- Soldering station and pen
- Power supply
- Red Pitaya or oscilloscope

Board files

Note: If you use DKRed and give at least 1 month notice, we will provide DigiKey credit to purchase.

Level

- Intermediate

Workshop size

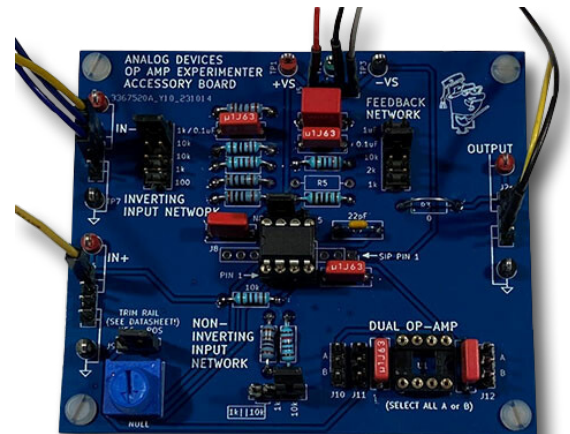
- 10 - 20

Additional resources

BOM

Parts included

- 1 kOhms 0.5W, 1/2W PC Pins Through Hole Trimmer Potentiometer Cermet 1.0 Turn Top Finger Adjustment
- Red PC Test Point, Compact Phosphor Bronze Silver Plating Through Hole Mounting Type
- Green PC Test Point, Compact Phosphor Bronze Silver Plating Through Hole Mounting Type
- Black PC Test Point, Compact Phosphor Bronze Silver Plating Through Hole Mounting Type
- 8 (2 x 4) Pos DIP, 0.3" (7.62mm) Row Spacing Socket Gold Through Hole
- 1 μ F Film Capacitor 40V 63V Polyester, Polyethylene Terephthalate (PET), Metallized - Stacked Radial
- 0.1 μ F Film Capacitor 160V 250V Polyester, Polyethylene Terephthalate (PET), Metallized - Stacked Radial
- 10 kOhms $\pm 1\%$ 0.25W, 1/4W Through Hole Resistor Axial Metal Film
- 100 Ohms $\pm 1\%$ 0.25W, 1/4W Through Hole Resistor Axial Metal Film
- 1 kOhms $\pm 1\%$ 0.25W, 1/4W Through Hole Resistor Axial Metal Film
- 2 kOhms $\pm 1\%$ 0.25W, 1/4W Through Hole Resistor Axial Metal Film
- 2 (1 x 2) Position Shunt Connector Open Top, Grip 0.100" (2.54mm) Gold
- Connector Header Through Hole 10 position 0.100" (2.54mm)
- Connector Header Through Hole 40 position 0.100" (2.54mm)



Arduino Workshop with Light-Seeking Servo

Introductory to the Arduino with a LED blink project and light control servo.

Parts needed

- USB to USC-C Cable per kit
- Computer with a USB port or an adapter
- Downloading the Free Arduino IDE

[Download here](#)

Level

- Beginner

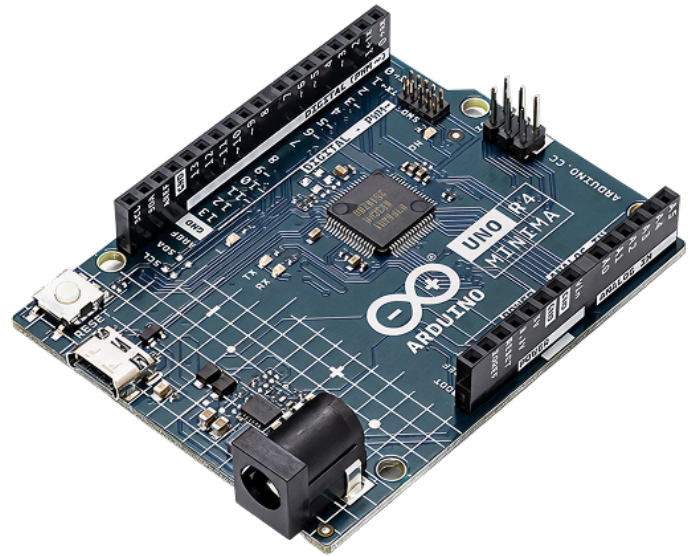
Workshop size

- 10 - 20
- Multiple students per kit

Additional resources

[Workshop slides](#)

Parts included

[View BOM](#)

Instructions to order

To order, submit your request through the [Monday Sponsorship Request Form](#)

Requirements for receiving workshop materials

We are happy to provide these kits to you at no cost upon approval of your workshop. In return for receiving the workshop kits, you are required to submit an unpaid Event Project documenting the workshop. While this arrangement does not include monetary compensation, you will earn points for completing the project.