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> [DEVMO MB102 Breadboard and Power Supply Module Kit User Manual](#)

DEVMO MB102

DEVMO MB102 Breadboard and Power Supply Module Kit User Manual

1. INTRODUCTION

The DEVMO MB102 Breadboard and Power Supply Module Kit is a comprehensive toolkit designed for electronics prototyping. It provides essential components for building and testing circuits, making it suitable for both beginners and experienced hobbyists. This kit is compatible with various microcontrollers, including Arduino platforms, and facilitates hands-on learning in electronics and programming.

Key features include:

- 830 Tie Point Solderless Breadboard for easy circuit assembly.
- Breadboard Power Supply Module offering stable 3.3V and 5V DC outputs.
- 65 pieces of male-to-male jumper cable wires for flexible connections.
- High-quality components ensuring reliable performance for your projects.

2. WHAT'S IN THE BOX

The DEVMO MB102 Breadboard and Power Supply Module Kit includes the following components:

- 1 x 830 Tie Point Solderless Breadboard
- 1 x Breadboard Power Supply Module
- 65 x Jumper Cable Wires (Male to Male)

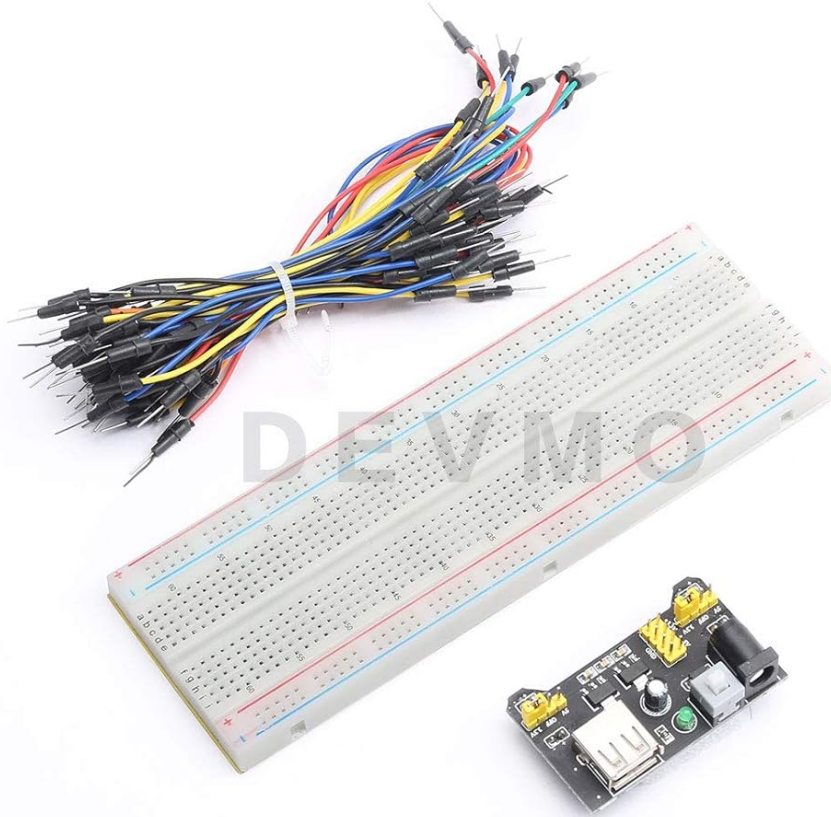


Image: Overview of the DEVMO MB102 Breadboard Kit, showing the breadboard, power supply module, and jumper wires.

3. SETUP INSTRUCTIONS

Before beginning any project, ensure you have a clean, well-lit workspace. Familiarize yourself with each component and its function.

3.1. Breadboard Familiarization

The 830 tie point solderless breadboard features rows and columns of holes for inserting electronic components. The long horizontal rows (usually marked with red and blue lines) are power rails, providing continuous power and ground connections. The shorter vertical columns are for component connections within a circuit. Components are inserted into these holes, and jumper wires are used to connect different parts of the circuit.



Image: Detailed view of the MB102 breadboard, highlighting the layout of its tie points and power rails for circuit assembly.

3.2. Power Supply Module Connection

1. Insert the pins of the Breadboard Power Supply Module into the power rails of the breadboard. Ensure the 5V and 3.3V pins align with the appropriate positive (+) and negative (-) rails.
2. Connect a compatible DC power adapter (7-12V, 2.1mm barrel socket, not included) to the power supply module's input jack. Alternatively, power can be supplied via the USB port.
3. Use the onboard jumpers to select the desired voltage (3.3V or 5V) for each side of the breadboard's power rails.
4. Flip the ON/OFF switch to the 'ON' position. The power indicator LED on the module should illuminate, indicating power is supplied to the breadboard rails.

3.3. Jumper Wire Usage

The included male-to-male jumper wires are used to connect components on the breadboard. Insert one end of a jumper wire into a component's pin hole and the other end into another component's pin hole or a power rail to establish electrical connections.

4. OPERATING THE KIT

This kit serves as a foundation for various electronics projects. Its operation depends on the specific circuit you build.

4.1. Basic Circuit Assembly

1. **Design Your Circuit:** Before placing components, plan your circuit layout. Many online resources and tutorials are available for basic breadboard circuits.
2. **Place Components:** Carefully insert components (e.g., resistors, LEDs, microcontrollers) into the breadboard holes. Ensure pins are not bent and are fully inserted for good contact.
3. **Make Connections:** Use the jumper wires to connect components according to your circuit diagram. Pay close attention to polarity (positive/negative) for components like LEDs and electrolytic capacitors.
4. **Apply Power:** Once all connections are secure and verified, turn on the power supply module. Observe your circuit's behavior.

4.2. Compatibility with Microcontrollers

The breadboard and power supply module are fully compatible with popular microcontrollers such as Arduino UNO R3, MEGA 2560, and NANO. You can connect your microcontroller's I/O pins to the breadboard to control components and read sensor data.

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Video: An official product video demonstrating the DEVMO 400/830 MB102 Point Breadboard and 1660 Power Supply Module. This video provides a visual overview of the kit's components and their basic arrangement.

5. MAINTENANCE

Proper maintenance ensures the longevity and reliability of your DEVMO kit components.

- **Storage:** Store all components in a dry, dust-free environment, preferably in their original packaging or a dedicated storage box.
- **Cleaning:** Keep the breadboard and modules clean. Use a soft, dry cloth to wipe away dust. Avoid using liquids or abrasive cleaners.
- **Handling:** Handle components, especially integrated circuits and modules, with care to prevent damage to pins or sensitive parts. Avoid excessive force when inserting components into the breadboard.
- **Power Off:** Always disconnect power from the module before making changes to your circuit to prevent short circuits or damage to components.

6. TROUBLESHOOTING

If your circuit is not functioning as expected, consider the following troubleshooting steps:

- **No Power Indicator:** Ensure the power adapter is correctly connected and providing the correct voltage (7-12V). Check the ON/OFF switch on the power supply module.
- **Component Not Working:**
 - Verify all connections are secure and correctly placed on the breadboard.
 - Check component polarity (e.g., for LEDs, diodes).
 - Ensure the correct voltage is selected on the power supply module (3.3V or 5V) for the component.
 - Test individual components if possible to rule out faulty parts.
- **Short Circuit:** If the power supply module's LED flickers or turns off, or if components become unusually hot, immediately disconnect power. Check for any unintended connections between power and ground rails or between

component pins.

- **Jumper Wire Issues:** Ensure jumper wires are fully inserted and not loose. Bent or damaged pins on jumper wires can cause intermittent connections.

For more complex issues or specific project guidance, refer to online electronics forums and Arduino community resources.

7. SPECIFICATIONS

Feature	Detail
Brand	DEVMO
Model Name	MB102
Breadboard Tie Points	830
Power Supply Module Output	3.3V, 5V DC (selectable)
Power Supply Module Input Voltage	7-12V DC (2.1mm barrel jack) or USB
Jumper Cables	65 PCS Male to Male
Compatibility	Arduino UNO R3, MEGA 2560, NANO, etc.
UPC	796753378809

8. WARRANTY AND SUPPORT

For product support, technical assistance, or warranty inquiries, please contact DEVMO customer service. Refer to the product packaging or the retailer's website for the most current contact information.

General return policy for this product is 30 days for refund/replacement. Please check with your retailer for specific warranty terms and conditions.

