

Joystick Module X-Y for Arduino – Precise Dual-Axis Control for Interactive Projects

The **Joystick Module X-Y for Arduino** is a compact, versatile, and highly responsive input device designed to bring intuitive control to your electronics projects. Inspired by the analog sticks used in modern game controllers, this module allows you to detect movement along two axes – **X and Y** – and also features a **built-in push-button switch** for additional functionality. Its simple yet effective design, combined with wide compatibility, makes it an essential tool for Arduino, Raspberry Pi, robotics, gaming consoles, and DIY electronics projects.

Whether you are developing a **remote-controlled robot**, a custom **game console**, or a **smart home automation system**, this joystick module adds a smooth and user-friendly control interface that enhances the interactive experience of your project.



Key Features

- **Dual-Axis Control:** Measures analog values along both X and Y axes for smooth navigation.
- **Integrated Push Button:** Detects digital input when pressed, adding extra functionality.
- **Operating Voltage:** 5V – compatible with Arduino, Raspberry Pi, and most microcontrollers.
- **Output Type:** Two analog signals (X, Y) and one digital output (switch).
- **Pins:** VCC, GND, VRx, VRy, SW.

- **Compact Design:** Easily fits on breadboards and project enclosures.
 - **Durable Construction:** Designed for long-lasting and stable use.
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Why Choose the X-Y Joystick Module?

This joystick module is one of the most **affordable and reliable** input solutions available. It allows you to add interactive control to your projects without complex wiring or coding.

Benefits:

- **User-Friendly** – Simple plug-and-play functionality with Arduino IDE and libraries.
 - **Versatile** – Suitable for gaming, robotics, and automation projects.
 - **Precise Input** – Smooth analog control for better navigation than digital buttons.
 - **Multi-Functional** – Provides both analog movement and a push-button feature.
 - **Affordable** – Low-cost input solution for educational and DIY projects.
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Applications

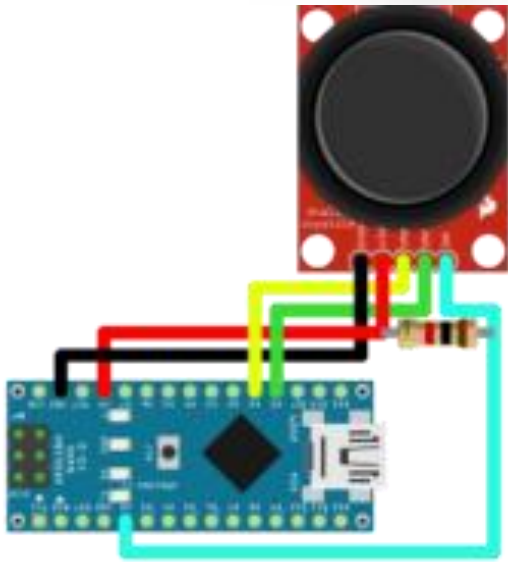
The **X-Y Joystick Module** can be integrated into countless projects, offering hands-on control for:

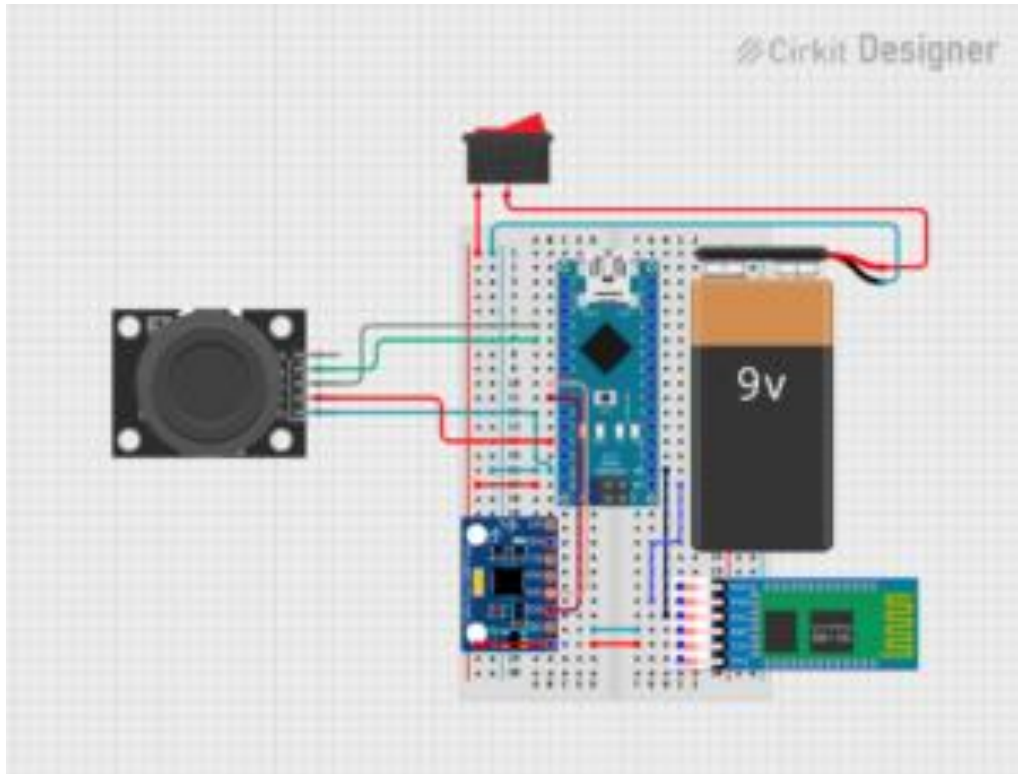
- **Robotics** – Control movement of robotic cars, robotic arms, or drones.
 - **Gaming Projects** – Build your own arcade-style joystick controller.
 - **CNC Machines** – Adjust axes and navigate menus with precision.
 - **Camera Control Systems** – Pan and tilt cameras using the joystick's analog signals.
 - **Mechatronics and Automation** – Provide manual input for smart devices and machinery.
 - **STEM Education** – Teach students about analog and digital inputs in an engaging way.
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Technical Specifications

- **Power Supply:** 5V DC
- **Output:**
 - X-axis: Analog voltage
 - Y-axis: Analog voltage
 - Switch: Digital output (pressed = LOW, unpressed = HIGH)
- **Interface Pins:** 5 (GND, +5V, VRx, VRy, SW)
- **Operating Principle:** Two potentiometers for X and Y motion, with built-in button switch.

- **Dimensions:** Compact PCB for easy integration in breadboards and custom enclosures.







What's in the Box?

- 1 × Joystick Module X-Y for Arduino

Final Thoughts

The **Joystick Module X-Y for Arduino** is a must-have for anyone looking to add interactive control to their electronic projects. With dual-axis analog control, a built-in push button, and seamless compatibility with Arduino and other microcontrollers, this module provides an intuitive way to manage movement, direction, and navigation.

From robotics and gaming to automation and educational experiments, the joystick module opens the door to creative and engaging project possibilities. Its affordability and ease of use make it especially popular among students, hobbyists, and makers who want hands-on control in their designs.

Bring your projects to life with the **Arduino Joystick Module X-Y** – compact, reliable, and designed to give you complete control.

For more Information please visit the [DataSheet](#)

Package included:

- 1 x Joystick Module X-Y For Arduino