Stepping Stone:

You need to know ...

- What is meant by electricity & how it works.
- Different between Series & Parallel connection.
- Voltage, resistance, and current.
- The function of the AVO meter and how to use it.
- What is a diode and how to connect it in a circuit.

You will be able to...

- Create and Design a Joystick Controller.
- Design a basic joystick controller circuit.
- Explain how a joystick controller sends signals to control devices.

let's Think

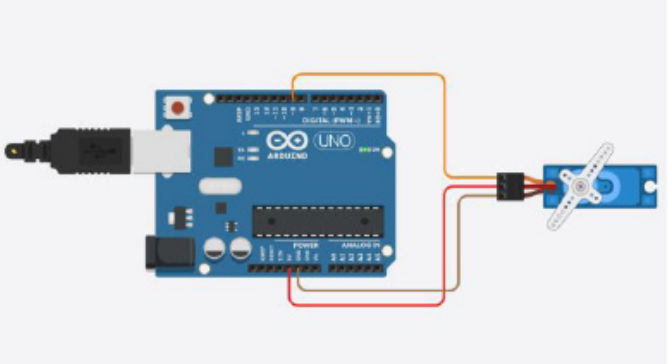
Ever wondered how video games know which way you're moving your character?

What do you think is inside a joystick that helps it control movement?

Explore

do it

Attach servo motors to your robotic arm, and then write and upload the code to ensure the motors function correctly.



Watch it..

To know more about joy stick and how to connect it with arduino.

Scan Here!

https://www.youtube.com/watch?v=MlDi0vO9Evg

Read about it

Let's understand more about joysticks and their types.

https://www.lenovo.com/us/en/glossary/joystick/?orgRef=https%253A%252F%252Fwww.google.com%252F

Scan Here!

Assessment

Focus

Choose the correct answer:

1. What is the primary function of a joystick module?

A) To display images.
B) To control motion.
C) To play music.
D) To charge batteries.

2. In which of the following applications are joysticks NOT commonly used?

A) Video game controllers.
B) Remote-controlled cars.
C) Microwave ovens.
D) Flight simulators.

3. What type of signal does a joystick module produce?

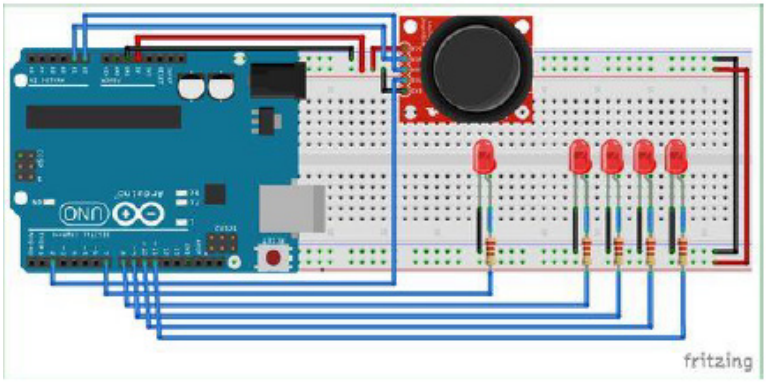
A) Audio signal.
B) Visual signal.
C) Electronic signal.
D) Magnetic signal.

4. How does a joystick typically detect movement?

A) Through a camera.
B) Using potentiometers or sensors.
C) With a microphone.
D) By measuring temperature changes.

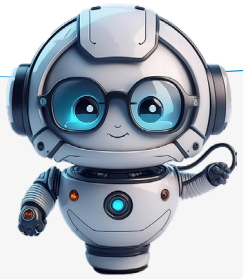
Practice

Build a joystick circuit, write the necessary code, and then observe how the joystick functions within the circuit.

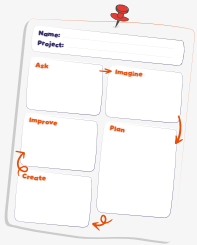


Shawcase..

Adding a joystick to control the robotic arm.



After we learned how can we connect the JOY STICK, let's go back to the EDP process and add it to the create part to add it to our robotic arm.



Now I can...

- Create and Design a Joystick Controller.
- I can design a basic joystick controller circuit.
- I can explain how a joystick controller sends signals to control devices.