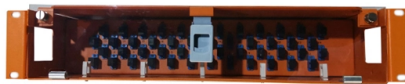


How to use the automatic light tracking module



Summary of Content

An automatic light tracking module uses light sensors and servo motors to detect and follow a light source, adjusting its position in real time for optimal alignment.

Hardware Setup

- **Sensors:** Most modules use photoresistors (LDRs) to detect light intensity. Some advanced setups use four LDRs arranged in quadrants to determine the strongest light direction .
- **Servo Motors:** Connect the servo motor(s) to the microcontroller to allow movement along one or two axes. For single-axis tracking, one servo is sufficient; for dual-axis tracking, use two servos .
- **Wiring:**
 - Connect the LDRs to analog input pins on the microcontroller (e.g., A0 for Arduino) with a pull-down resistor to stabilize readings .
 - Connect servo power (5V) and ground to the microcontroller, and the control wire to a PWM-capable pin (e.g., pin 9 on Arduino), .
 - Ensure all connections are secure to prevent disconnections during movement.

Software and Programming

- **Reading Sensor Values:** Continuously read analog values from the LDRs. For multi-sensor setups, calculate the average intensity for each axis (top vs bottom, left vs right) to determine the direction of the light .

Article Content

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Q: How do you use the automatic headlights? If your car is equipped with automatic headlights (optional equipment),

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User Manual

If the status indicator does not light up after installation, check if the magnetic attachment is in place. If the tracking

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Overview In this lesson, we will make a light tracking system based on a servo and a photoresistor.

Auto light tracking system Patch to the MA2 controller.

Auto light tracking system Patch to the MA2 controller. □□ 1. Choose library "dimmer"
2. Check

Automatic_Light_Source_Tracking o

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Luckily, my Light Tracking Gimbal is able to move smoothly towards the light source and hold its position while light

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Lesson 13 How to Use the Tracking Module 13.1 Tracking module The "road"-the black line can be judged according to

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✳ Dual Servo Light Tracking System Using Arduino

This project uses two LDR (Light Dependent Resistor) sensors to detect light intensity and controls two SG90 servo motors to track

Contact Us

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