

Deep Thought 2.0 — Sensor Sync

Context

Deep Thought 2.0 has suffered a critical failure in its perception systems.
Reconnect the wires of the **HC-SR04** correctly and calibrate it together with the light sensor (LDR).

Mandatory

Step 1

- Connect the wire pairs of the **HC-SR04** to the corresponding pins (**VCC, TRIG, ECHO, GND**). Each pair is labeled.

Step 2



- Adjust the **distance sensor (HC-SR04)** until it reaches the expected value.
- Adjust the **light sensor (LDR)** until it reaches the expected value.
- Keep both sensors stable at the correct level for **3 continuous seconds**.

When the condition is met:



 **The calibration display will show “OK”**

 **The LCD display the puzzle password.**

Expected Values

-  Distance: **4 levels**
-  Light: **2 levels**

Notes

- Feedback is shown on the LED matrix: each level corresponds to one row of LEDs being lit.
-  The **HC-SR04** measures the distance to an object in front of it.
-  The **LDR** measures light intensity: cover it with a shadow or shine light to change its value.

Hint

*“Not too far, not too close.
Not too bright, not too dark.
The key is balance.”*