

Input → Process → Output

Discover

Program the Arduino to control an output based on an input value.

Learn

Create a voltage divider as per ARD2-LDR_In, and open the basic example, File → Examples → 01.Basic → ReadAnalogVoltage.

In setup, there is the command “**Serial.begin**(9600);” which begins the serial port at the given transfer (baud) rate allowing the arduino to talk to the computer via the USB cable.

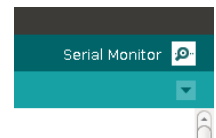
Then in the loop, the print line command can be used, “**Serial.println**(...”

This command sends any text you want to the computer, the moves to the next line.

Apply

Upload the example and look at the output via the “Serial Monitor”.

Now add a print command “**Serial.print**(“*”); ” before the println command. Notice that it draws the character on the same line as the voltage.



Contional

Add a condition to only print the * if the voltage is below 1. For this you'll need to use the Control Structure, “if”. Look in Help → Reference to learn how to use it.

Logic

Now try modify the code to turn on the light when it goes dark, and off when it is light.

Also looking back at ARD2-LED_Out or other examples will help to set the output and LED circuit.

Teach

think up some ideas to use the LDR and button. Discuss with another and try to build them.

Discover

What would you like to learn next?

ARD3-InOut

Unlocks: <your ideas>