# Light depending resistor

### Goal:

The brightness of the LED shall increase if it is getting darker in the room.

First step: use [analogWrite()](https://www.arduino.cc/reference/en/language/functions/analog-io/analogwrite/) to adjust the brightness of the LED.

Second step: use [map()](https://www.arduino.cc/reference/en/language/functions/math/map/) to convert the 10-bit value that you got from analogRead() into a 8-bit value which is necessary for analogWrite().

### Parts:

* LED, 330 Ω resistor
* LDR, 10 kΩ resistor

### Circuit:



### Sourcecode:



Attention: you have to adjust the values inside the map()-function according to your measured values.