2.2 Arduinouno and electronics simulation

We can use several simulating programs to simulate robots. There are awesome platforms that allow simulations like: 3Dvisualizer or Webots... But since our robot will be based on the Arduino Uno controller probably the best option is:

Thinkercad

You can sign in with your google account.

2.2.1 Task:

- 1. Try to do some basic project (e.g. Blink) to turn on and off an LED.
- 2. Try to add your own LED on the different output pin and change the program like is shown on the fig. 1 to make it work (LED must blinking).

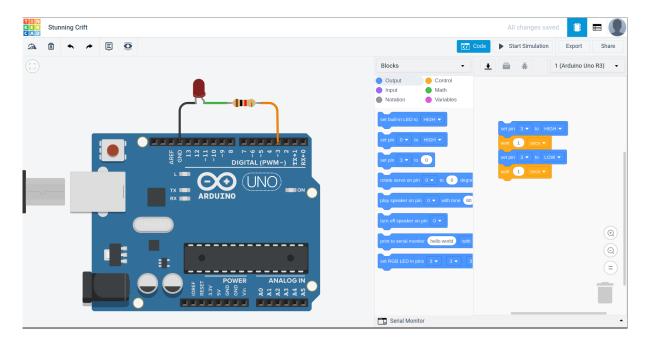


Figure 1: Blink example in Thinkercad.

2.2.2 Questions:

- 1. How can you control the output voltage potential?
- 2. In which direction will electric current flow?
- 3. What voltage is present on the resistor?

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- How can we determine the voltage on the resistor (describe 2 possibilities)?
- 4. What voltage is present on the LED?

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