



Pathway – Level 1

Introduction to Arduino:
buttons, control knobs, fading LEDs, and USB communication!

In this introduction to coding for the Arduino, you will learn how to use inputs and outputs.

Explore

Get new skills

To get started

- “Hardware” intro
- “Arduino Nano Extension Board” intro

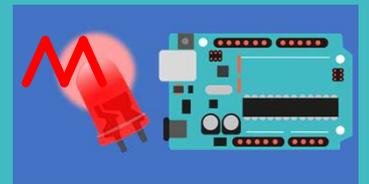
Blinkacounter

You'll blink an LED, count the blinks and display that number on your PC.



Fade

You will use code to increase and then decrease an LEDs brightness repeatedly. Then add code to extend the LEDs behaviour, as challenges.



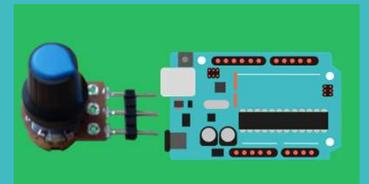
DigitalReadSerial

You will use code to repeatedly read the status of a button switch connected to a digital I/O pin. Then add code to extend the LEDs behaviour, as challenges.



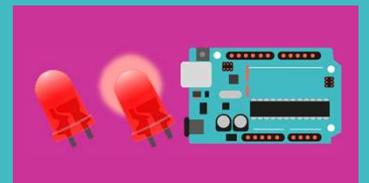
AnalogReadSerial

You will use code to repeatedly read a potentiometers wiper voltage, when connected to an analog input pin. Then add code extensions as challenges.



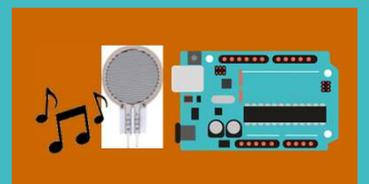
Blink without Delay()

You will use a more advanced coding method to turn an external LED on and off repeatedly. Then add code to change the LEDs behaviour, as challenges.



Digital Examples

You will work through the digital examples, starting with Button, and then make your own designs and musical tune.



Invent

Create a unique solution

Design
Make design decisions