

Potentiometer Control

In this project, I discover the uses of potentiometers when they control things.

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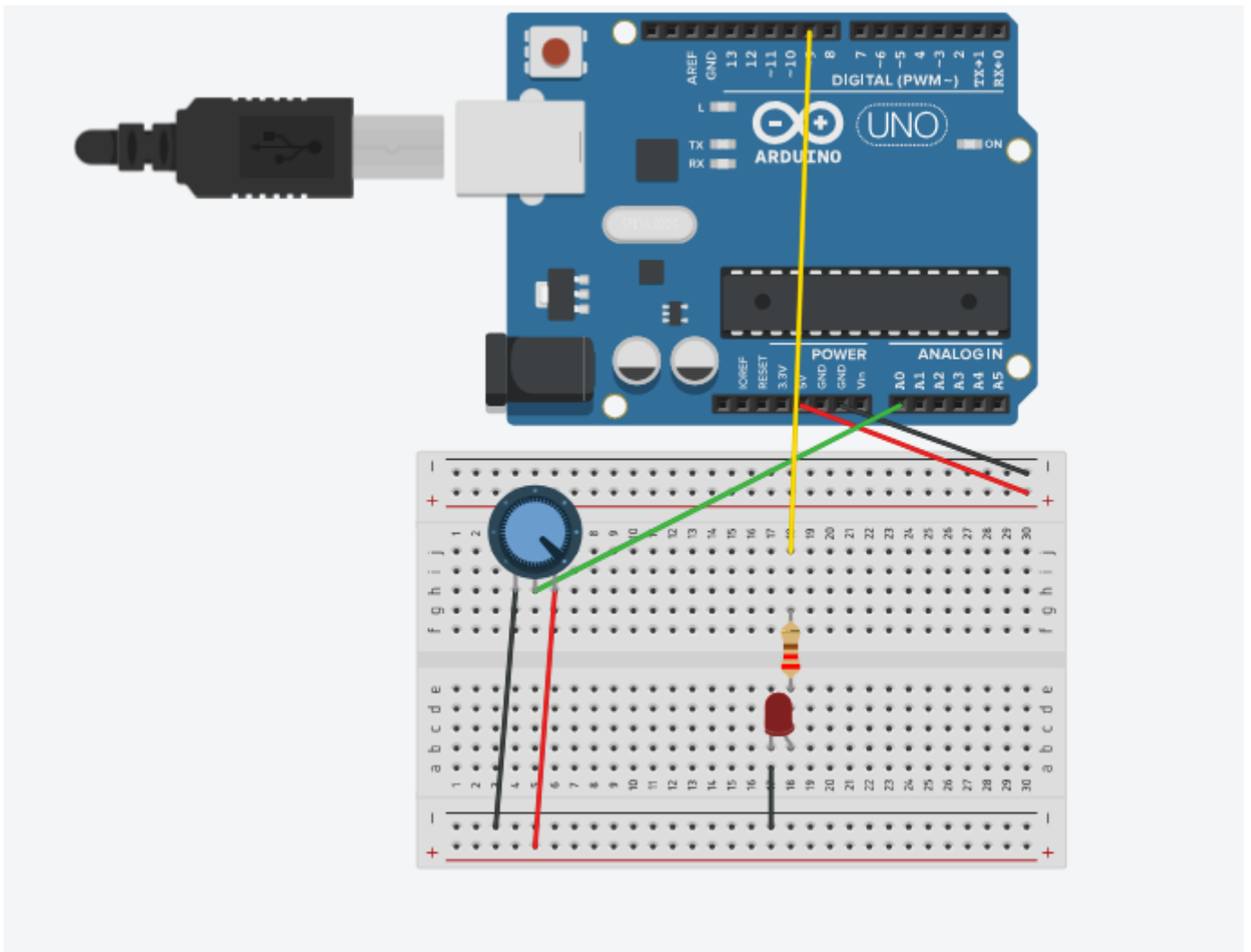
Introduction

On a Sunday morning, the 23rd of November, solemnity of Christ the King, I was messing around with my circuits, and wanted to make a LED fade in and out with a material controller, instead of putting values into the serial monitor or anything, I decided to use potentiometers because I had seen a robot arm controlled by a mini itself, which was really cool.

I wanted the potentiometer to control a LED's brightness, sort of like the lights in our living room. I built the circuit right away with no trouble because I have learned how to work with circuits from the flying fish over project.

The component list: Arduinio UNO, active buzzer, LED, 220khm resistor, potentiometer, jumper wires, breadboard extension module

Here is a diagram of the circuit:



The Code

Since designing it was pretty simple, writing the code was also fairly straightforward.

```
1  const int potPin = A0;
2  const int LED = 9;
3
4  int pwm = 0;
5  int potVal = 0;
6
7  void setup() {
8      pinMode(LED, OUTPUT);
9  }
10
11 void loop() {
12     potVal = analogRead(potPin);
13     pwm = map(potVal, 0, 1023, 0, 255);
14     analogWrite(LED, pwm);
15     delay(100);
16 }
```

I used digital pin 9 for the LED control and the A0 for the potentiometer control.

Another cool use for this is a piezo, because it makes all the different notes, like a tuner.