

Fading in and Fading Out (Analog or Digital?)

A few pins on the Arduino allow for us to modify the output to mimic an analog signal.

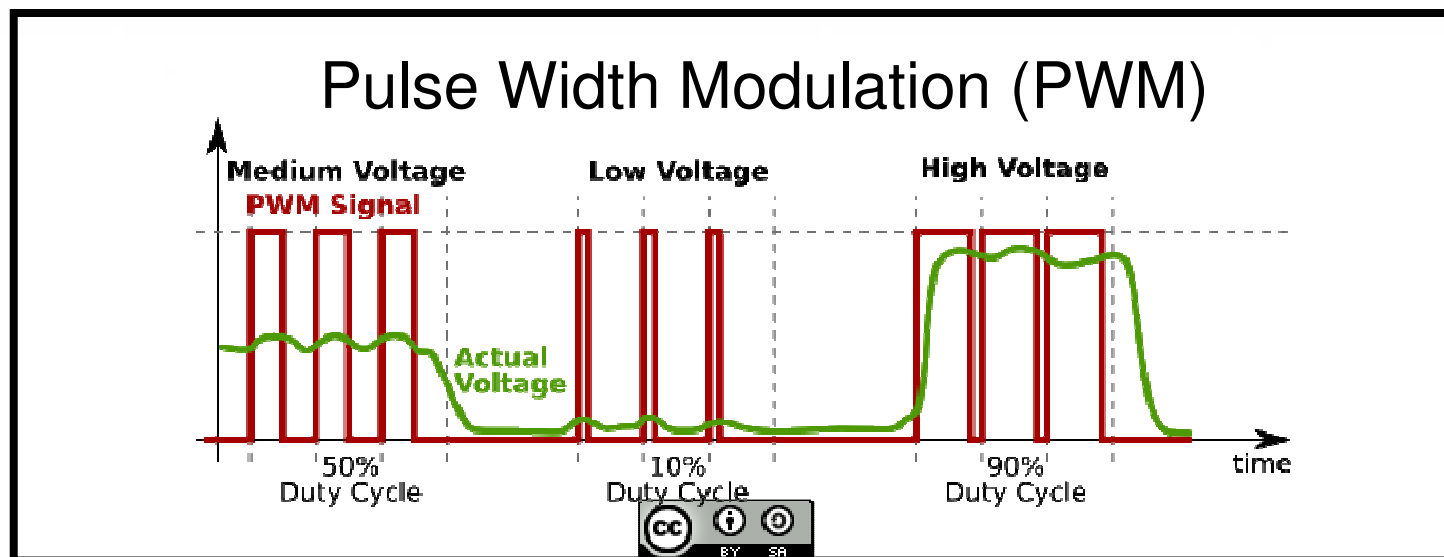
This is done by a technique called:
Pulse Width Modulation (PWM)



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Concepts: Analog vs. Digital

To create an analog signal, the microcontroller uses a technique called PWM. By varying the duty cycle, we can mimic an “average” analog voltage.



Project #2 – Fading

Introducing a new command...

```
analogWrite(pin, val);
```

pin – refers to the OUTPUT pin
(limited to pins 3, 5, 6, 9, 10, 11.)
– denoted by a ~ symbol

val – 8 bit value (0 – 255).

0 => 0V | 255 => 5V

