Noah’s IOT Lunch and Learn

IOT = Internet Of Things

IO = Input/Output

Digital vs Analog

Digital:

- On/off signal (called HIGH or LOW)
- Can be either input or output

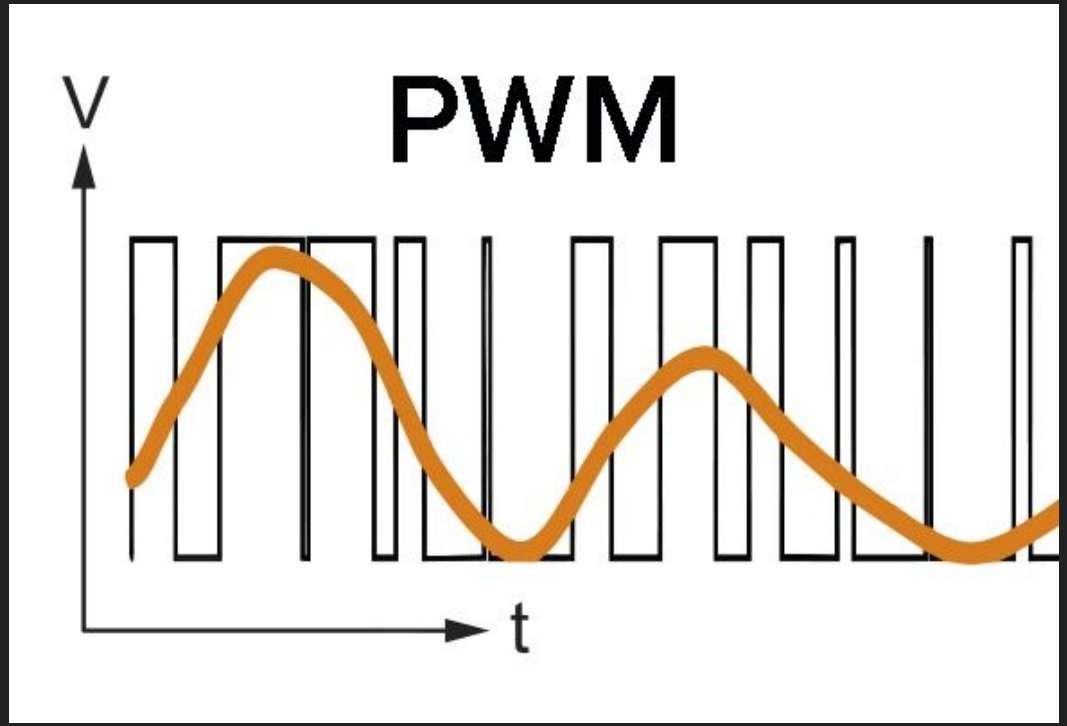
Analog:

- Uses varying voltage to send a signal
- Digital devices have a hard time producing analog signal, so it’s primarily input, specialized hardware is required for analog outputs

PWM, not analog

A series of quick on/off bursts that emulate an analog signal

Output only, no input methods do this.



Servos vs motors

Servos:

- Limited range of motion (generally)
- Are positionally aware
- Different input voltages (or PWM signals) result in different positions

Motors:

- Infinite range of motion
- Lack positional awareness
- Different input voltages (or PWM signals) result in different speeds

Questions so far?

IOT in Javascript?

Yeah, it’s weird.

IOT often uses compiled languages, to cut down on processor costs

Johnny Five JS

```
var { Board, Led } = require("johnny-five");

var board = new Board();


board.on("ready", () => {

  var led = new Led(13);

  led.blink(500);

});
```

- This is a board setup
- Also sets up new LED and blinks it

Questions so far?

Let’s get started

I’ve made some exercises for us to breadboard and create.

https://github.com/ntatko/iot-lnl#1904labs-internet-of-things-lunch-and-learn-series