

JavaScript IoT

Using an ESP8266 module
to do cool things

What is Internet of Things?

All the things, connected to the internet..

Toasters, light bulbs, cars, coffee pots, door locks, baby monitors, etc. etc. etc.

Why things on the internet?

First webcam: https://en.wikipedia.org/wiki/Trojan_Room_coffee_pot

Commercial Examples

- Philips Hue
- Nest thermostat / cameras
- WeMo

Hacker Examples

- Arduino,
- Raspberry Pi, a
- IFTTT (If this, then that), general purpose connector of cloud services
- Old-school: X10, serial device, web-server, php script
- ESP8266

What is the ESP8266?

Low-cost wifi module created by Espressif Systems, for embedding in IoT devices.

- Low power 80 MHz CPU
- b/g/n wifi support built in
- More info: <https://en.wikipedia.org/wiki/ESP8266>
- Used for microcontrollers like NodeMCU, Feather Huzzah.

What do we do with it?

- Monitor pool/room temperature
- Track how often cats eat food
- Control lights with webpage
- Weather station

How do we do that?

Espruino is a JavaScript run-time (aka interpreter) that can be flashed into ESP8266 storage

ThingsSDK-cli is the tool we will use to create projects

(Thanks to Andrew Chalkley, Craig Dennis, and the rest of the ThingsSDK contributors!)

<http://thingsdk.com/>