

# A Gentle Introduction to IoT

How things use internet to get stuff done

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# What IoT Exactly is?

## The Name

- **M2M (Machine to Machine)**
- **“Internet of Everything” (Cisco Systems)**
- **“World Size Web” (Bruce Schneier)**
- **“Skynet” (Terminator movie)**

# What it means

## The Game

It's the network of **Physical Objects** such as your **shoes, refrigerators, heaters** embedded with **electronics, softwares and sensors** which allows to **exchange data**.

# What it does

## The Fame

**Assume, your umbrella is connected to internet and can notify if it's going to rain or not.**

**\*Wouldn't that be awesome?**

Building such things are easy!



Once you've got the  
basics right!

So  
What are those  
basics?

- Can you make a simple web app?
- Can you make GET/POST requests?
- Can you connect your embedded system with Internet?



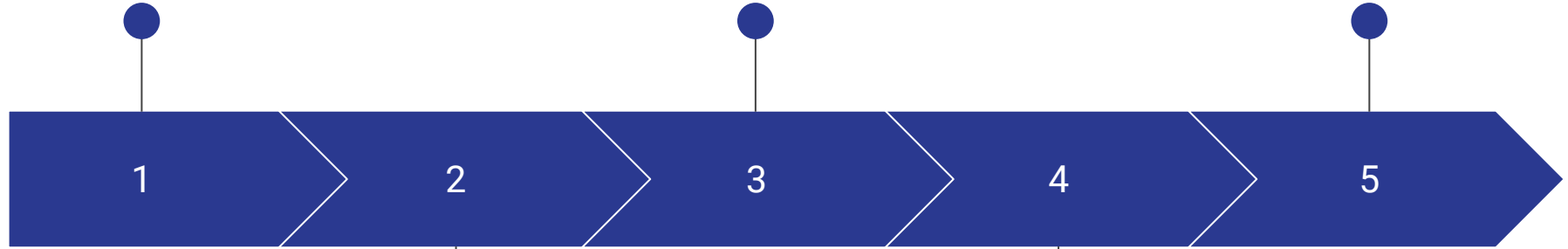
That brings today's discussion

The Work Flow

**Connecting & Debugging  
ESP8266 with PL2303HX**

**Learn Flask**

**Assignment  
Distribution**



1

2

3

4

5

**Learn Python**

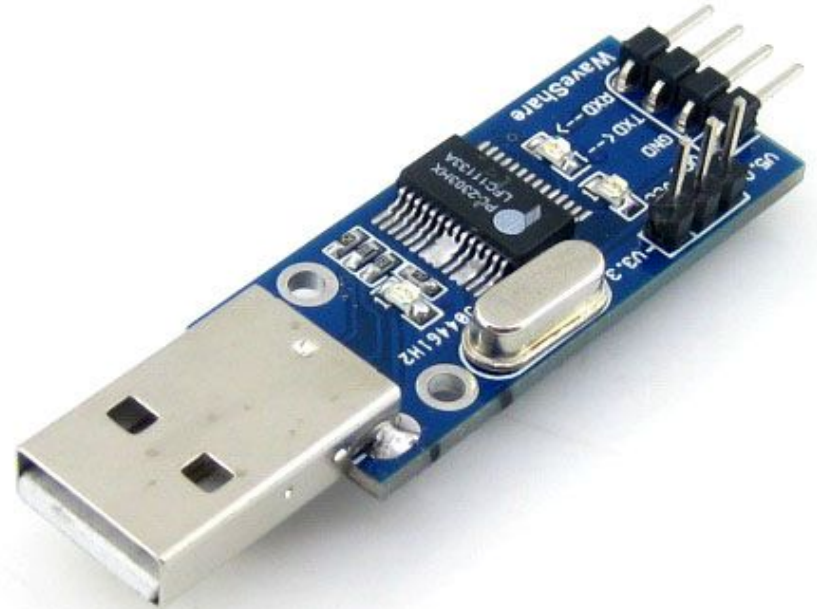
**Make an app with  
Flask, test  
connectivity with  
ESP8266**



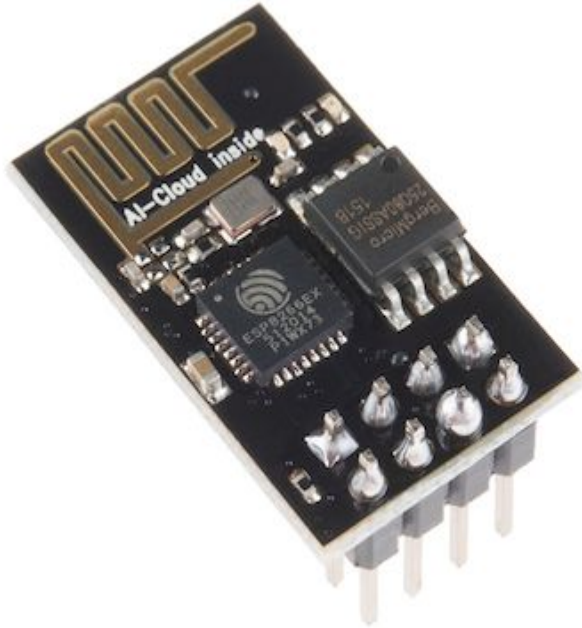
# What PL2303HX is?

It's a USB to  
Transistor-Transistor Logic  
(TTL) Level Shifter.

**Means, it's a translator.  
Translates high level logic  
into lower one.**



# What ESP8266 is?



It's a low cost WiFi Module.

Which will allow Arduino to get connected with the web.



## What's with the Flask?

It's not a physical  
thing.

It's a Python library,  
which will be used  
to write a simple  
web application!

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# What's Python?



# Seriously?

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Let's start