## CHAPTER TWO

# IOT Devices

## What is an IOT device?

It's a physical object that connects to the Internet. It can be a fitness tracker, a thermostat, a lock or appliance – even a light bulb.

Imagine shoes that track your heartbeat… and can flag potential health problems. You don't have to imagine – these "smart" shoes already exist!

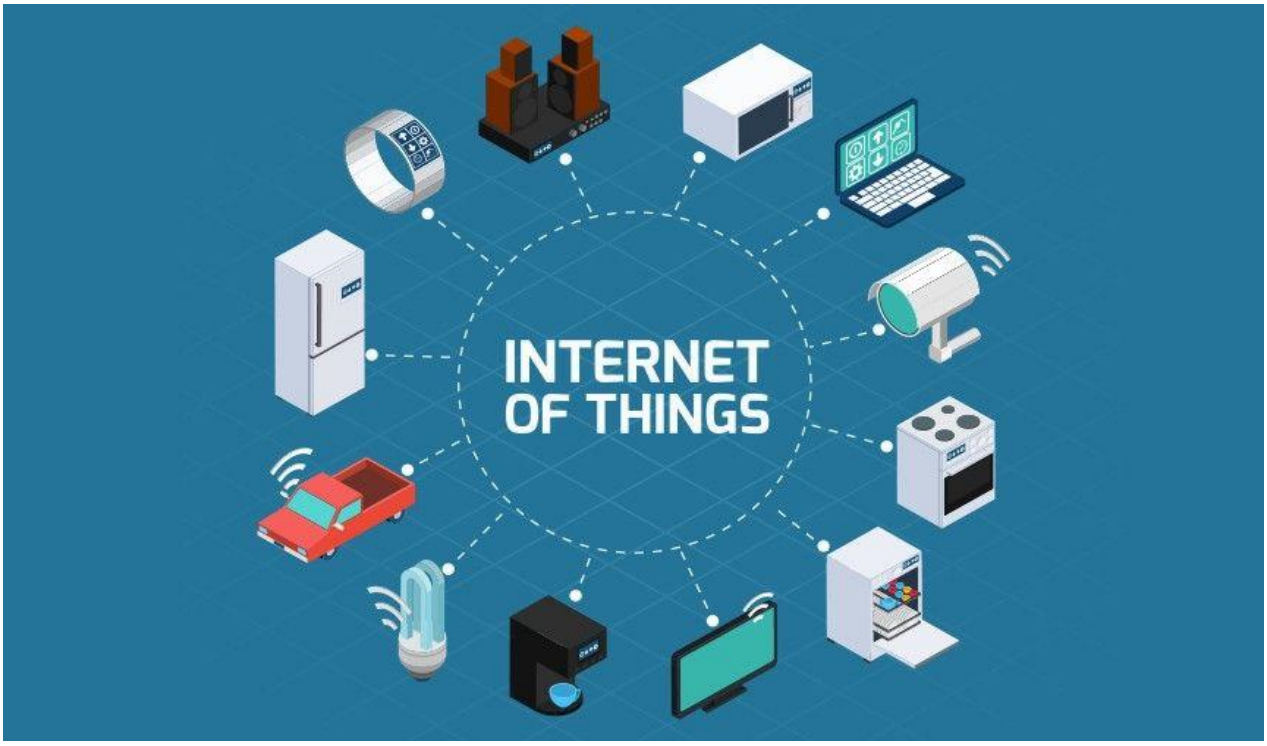
How will it affect me?

The Internet of Things has arrived and it's going to introduce incredible opportunity over the next five years. And while smart things are exactly that, the IOT industry has a long way to go in terms of overall security. Many of today's IOT devices are rushed to market with little consideration for basic security and privacy protections: "Insecurity by design."

This puts you and everyone else at risk: from unwittingly being spied on or having your data compromised to being unable to lock your own home. You could even become part of a botnet that attacks the Internet. Your insecure webcam – along with millions of others – could be used to attack the power grid of an entire country.

From dental sensors that can monitor what a person eats to kitty litters that can track a cat's every movement, it can be difficult to sort fact from fiction when it comes to the Internet of Things. Can you tell which is real and which is not?

## Examples of Internet of Things in Daily Life




IOT is a network of electronic devices that are interconnected in order to exchange information. The main purpose of IOT is to access and operate the gadgets from a distance with little or no human assistance. IOT-equipped gadgets are connected to each other via the internet and are designed to exchange data with each other to perform remote operations. These interconnected devices or electronic gadgets are often referred to as 'things'. Most of the electronic devices consist of embedded sensors. These sensors are used to emit data and tell about the status of the device. IOT establishes a common site for all the devices to dump their data and provides a common language for them to communicate with each other. This dumped data is then analyzed, and valuable information is extracted from it as per the need and convenience. The result is shared by all the connected devices. The devices may be connected to each other either by the wired method with the help of Ethernet or wirelessly through Bluetooth. The term IOT was first coined by Kevin Ashton in 1999.