TEAM DYSON PRESENT TO YOU,

The Internet of Things (IoT)

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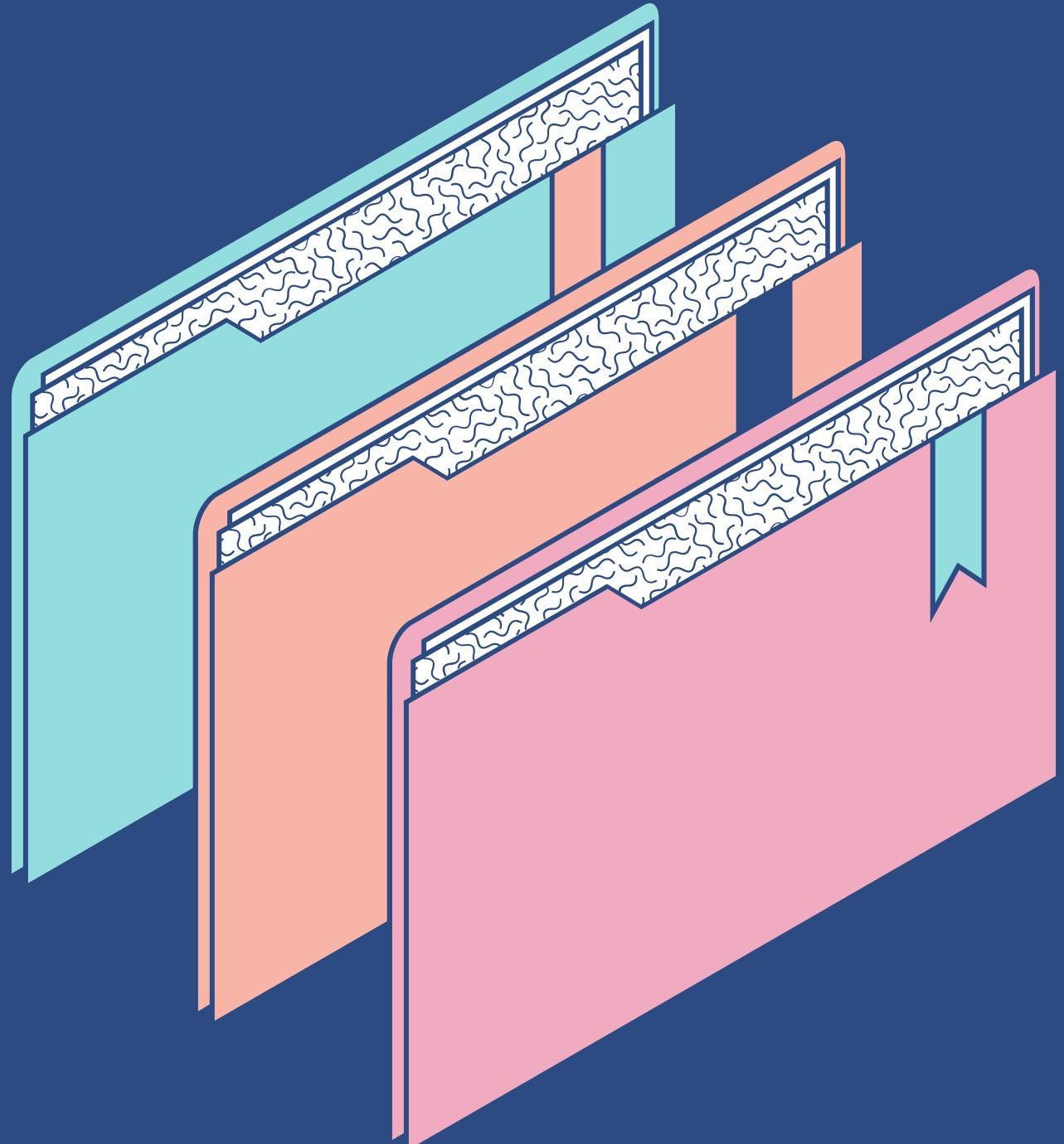
Contents

What is IoT?

- THE INTERCONNECTION BETWEEN PHYSICAL DEVICES AND INTERNET BY COLLECTING AND SHARING DATA.
- WITH CONNECTING THESE TWO DISTINCT OBJECT AND ADD SENSORS TO THEM, IT WILL INCREASE ITS DIGITAL INTELLIGENCE TO A HIGHER LEVEL.

How does IoT work?

LETS ANSWER IT WITH A FEW KEY QUESTIONS.

To understand the question. Lets think of IOT implementing devices.

Modern day Smartphones, any device that has "Smart" in front of its name.

What determines the smartness of a device?

Intelligence of a device is determined similarly to how humans consider themselves intelligent.
Device needs sensors and a mini computer containing processors to be defined as smart.

Machine Learning

Machine learning helps the sensors in "Smart" devices be vigilant of the surrounding.
This does not mean your smart devices can have a conversation with you, like a human can.
But it can help you make your everyday life a bit easier.

SMART HOME

Home appliances can be interconnected to share data with the user over a mobile application. The user could get detailed insight onto the working of devices around them. For example, the air-conditioner, doorbell, thermostat, smoke detectors, water heater and security alarm.

Example scenario:
When the alarm clock goes off, the IoT could open the window blinds and also turn on the water heater for people to take shower in the morning.
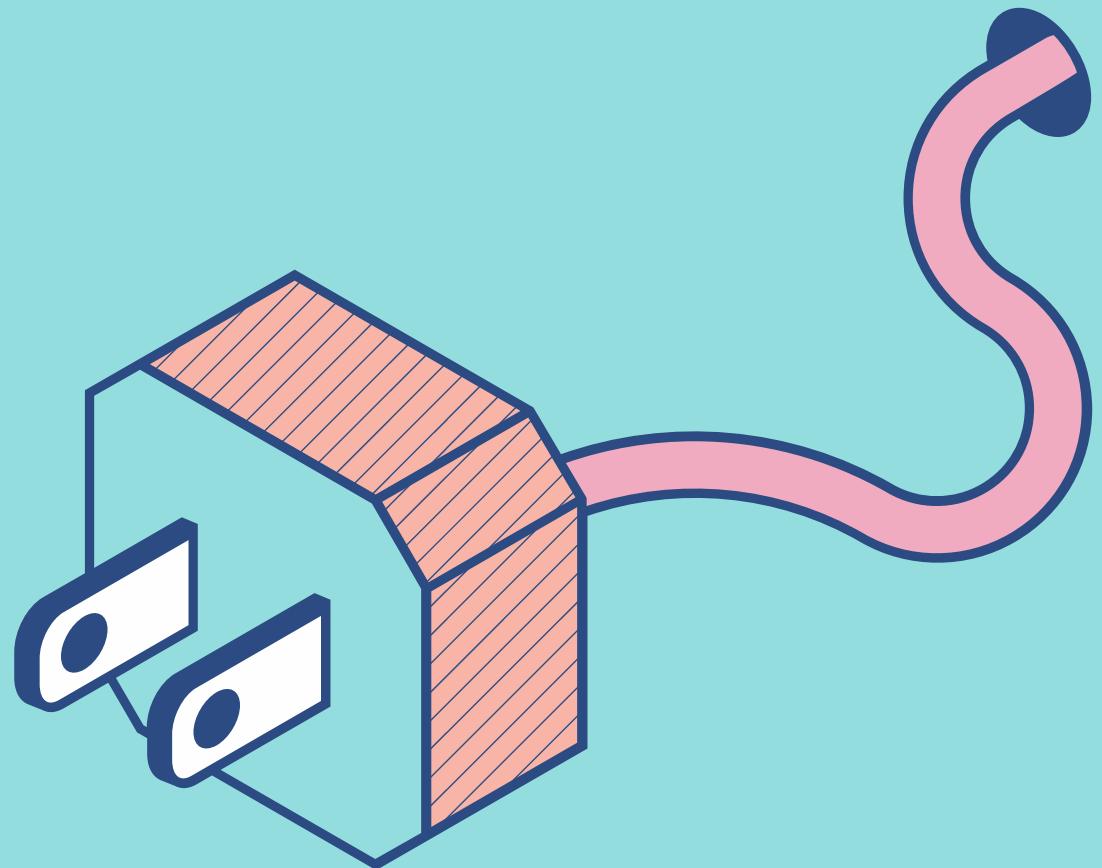
# IoT Devices

GENERAL DEVICES
MAIN COMPONENT OF DATA HUB AND INFORMATION EXCHANGE CONNECTED EITHER WIRED OR WIRELESS. (EG. HOME APPLIANCES)

SENSING DEVICES
MEASURE TEMPERATURE, HUMADITY, LIGHT INTENSITY.

CONNECTOR
WIFI, BLUETOOTH, ETC.
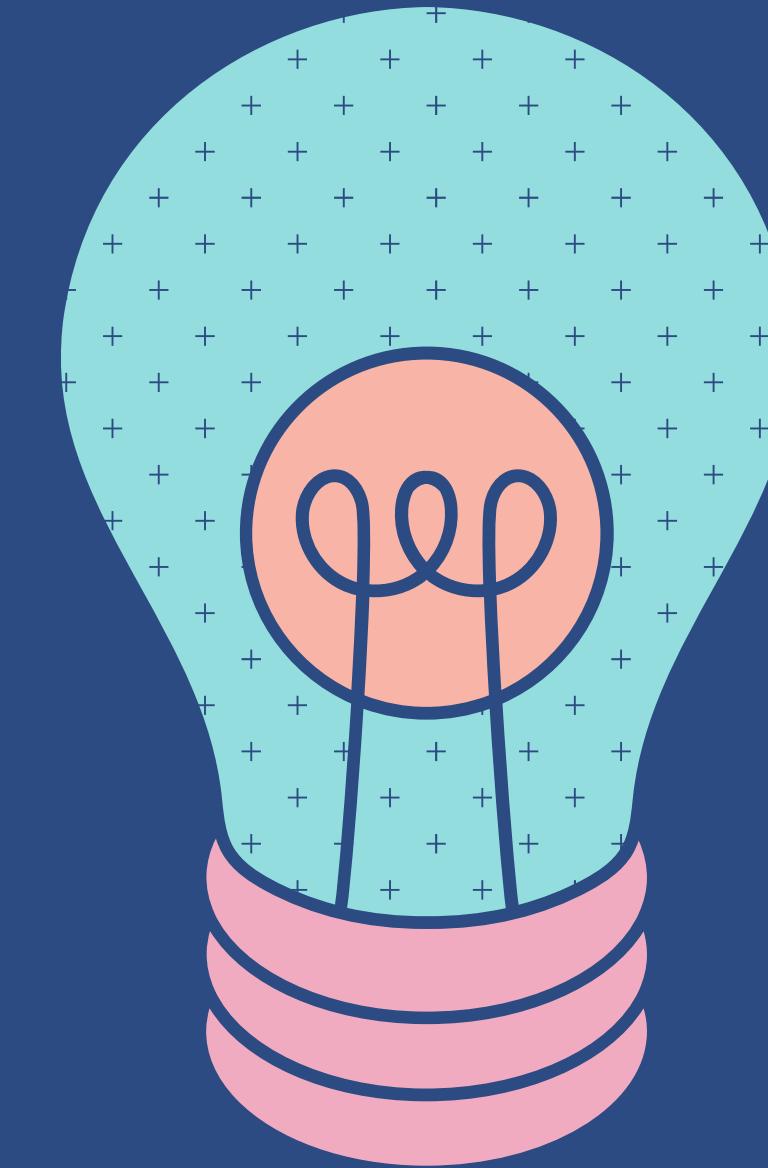
HOW SMART HOME WORKS?

1 ———— **2** ———— **3** ———— **4**

Devices connected to the network with the help of gateways.

Gateways process information collected by sensors

Information transfer to clouds

Data collected display as references.
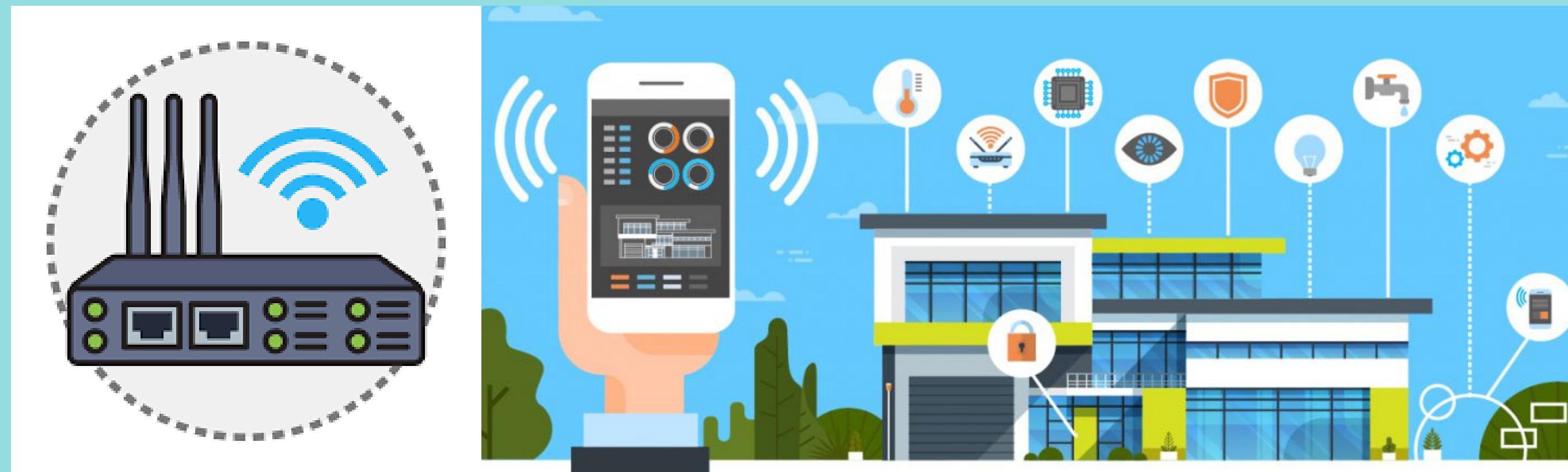
PROS

- Easy access
- Automation and control
- Saves money and energy
- Increased productivity

CONS

- Complexity
- Compatibility
- Privacy and security
- Controls your life

Issues of IoT

WHAT ARE THE CONCERNS ABOUT IOT

Standards and Regulations

Different smart devices may use different wireless communication protocols due to lack of IoT standards.

Privacy

Sensitive and personal information shared by the IoT devices has obvious chance of leaking through unauthorised access.

Security

The characteristics of IoT make it vulnerable to cyber attack. If one IoT device is hacked, the whole system or even other system can be damaged.

THANK YOU

We hope you learned something new.