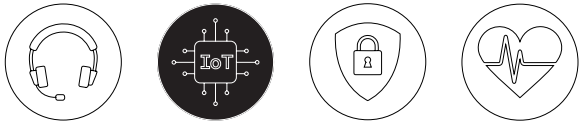
Real risk scenarios cards



IoT lesson 1

Doorbell disaster
A leading retailer launched smart doorbell product which features a motion-sensor security camera, allowing homeowners to see visitors, passersby and potential burglars by viewing a live camera feed via a password-protected app. Cybercriminals were able to break into numerous accounts by exploiting weak password credentials. The attackers could then view live feeds and even communicate through the devices.

Healthcare havoc
An innovative medical device was developed to be installed in people's pacemakers*. The device was created to send data about the patient's heartrate back to healthcare professionals. If they could see any issues, doctors could also use the device to send pulses to the patient's heart. Cyber-attackers found a way to intercept the transmissions from the device, meaning they could change how well the pacemaker worked by depleting the battery and even administer fatal shocks.

*A pacemaker is a medical implant that sends electrical pulses to the heart to help it beat at a normal rate and rhythm

Four-wheel fraud
A well-known car company created software which could monitor safety issues, for example if the driver was travelling at dangerous speeds or going towards a collision. The software allowed users to take control of the car's steering and speed as a way to keep drivers out of danger. Cybercriminals were able to hack into this system through its IoT network, meaning they could slow the car door, cause it to stop or even turn the wheel to make it veer off the road.

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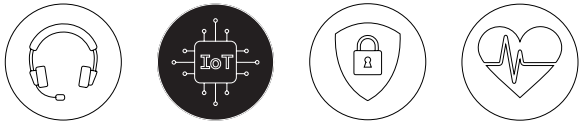
Stakeholder sheet



IoT lesson 2

In this activity, you're going to look at data privacy issues from the perspective of different **stakeholders**.

A **stakeholder** is someone who has an interest – usually financial – in the success of a company.

In groups, choose one stakeholder from the stakeholder sheet, then write down answers to the following questions:

What would be this stakeholder's **biggest concerns or priorities** in relation to the company?	What are the **potential consequences** for this stakeholder if the company's IoT system experiences a **data breach**?	What **advice** would you give this stakeholder around **protecting their personal data** when using IoT systems?

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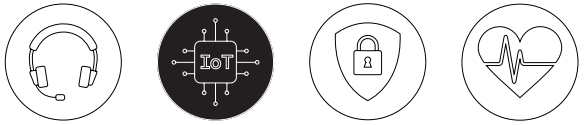
Stakeholder cards



IoT lesson 2

An investor – someone who puts funding into the company so that they can in turn make money from the company's success	**An employee** – someone who works for and receives a salary from the company	**A customer** – someone who uses the services or products provided by the company	**A supplier** – someone who provides the materials, information or services to make sure the company can keep running, making products and/or offering its services

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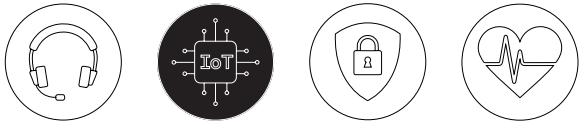
Product planning template



IoT lesson 3

Use the following planning template to set out the key features of your product.

Did you know that product designers often use this type of document as a planning tool when designing and developing new ideas?

Overview of your product		
What is your brand name?	Who is the target audience?	What do you want it to achieve?

How your device will work:	**Social awareness of your product:**	**Data privacy considerations:**
What sensors and data will your device use?	How will you make your product as affordable as possible?	What data and privacy issues do you need to consider?
What metadata will the sensors need to collect?	How can your product improve the lives of your target audience(s)?	How will you make sure your product keeps your audience's personal information safe?

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