Computing

This term we are going to be making a programme on Scratch using Sensors and Variables! ☺ Follow the slides to learn about them.

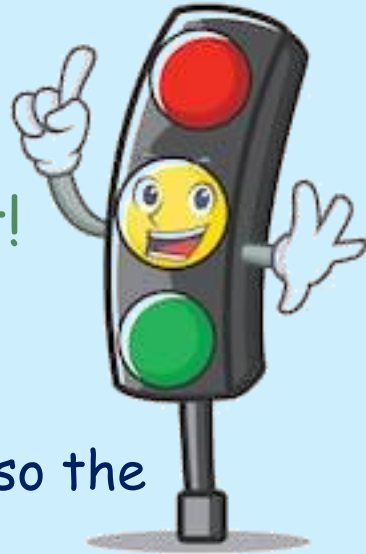# WALT understand what a sensor is.

WILF:
- Explain what a sensor is.
 - Give examples of where sensors are used.
 - Understand how sensors work.

What do you think a sensor might be?

Click on the traffic light and watch the video to find out!

Sensors monitor things that are happening and trigger a response.

For example, traffic lights have cameras – the sensors are in the cameras, so the computer can find the cars waiting and make the lights change.

The lights in the classroom have sensors, so when there is no movement for a long time they sense it, and the programming inside them makes them turn off.

How many things that use sensors can you think of? Write some down!

Robotics use sensors!

Take a look at this robot relying on sensors.

As you watch, write down every time it is using a sensor, what for, and what would happen if it didn't have the sensor.

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Click me →

Now write the commands for the sensors of the robot below. Think about how it would be written in scratch.
For example: If leg touches object, move back 10.

Try your code around your room! Stand up, move around and follow your own instructions. Is there anything that would need to be fixed? For example, do you have enough room to move back 10 or would you need to adapt your code? Write any changes here.

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Sensors are also used in games! When you get points in a game, that is triggered by a sensor. The score is a variable – we'll look into that later this term.

This term we will be making a sensor and variable based short game on Scratch, so you'll get lots of practise with what a sensor is.