



LEGO EV3 Resources

Mars Mission

The UK Space Agency needs to make sure that its Rover will react correctly on Mars, to do so they need a program that will make a Rover complete a task with no manual input from the command centre on Earth.

In this activity you will learn about programming the Lego EV3 rover and using it to complete a task independently.

Questions

1. How will the Rover know when to use its motors?
2. If the Rover senses something how will it know what action to take?
3. After the Rover has completed a task how will you reset it to continue its mission?

Programming Driving and stopping

Learn about the basic of programming of the LEGO EV3 Rover, by making it drive forward, Stop and backwards.

Turning

Add turns to your rover and understand how angles and shapes are important when considering the movement of robots.

Colour sensors: Recognising different colours and programming to react to them.

Program the Rover to recognise different colours and interact with those colours in different ways.

Navigate a path, with colours

Program your Rover to navigate a path, using colours.

Avoid Collisions using Ultra Sonic Sensor

Program your Rover to avoid colliding with obstacles such as walls, students and other rovers.

Make an alarm forif the Rover gets too hot, using the Temperature sensor: Recognising a change in temperature

Program the Rover to recognise a change in Temperature and play an alarm when at a predetermined temperature.