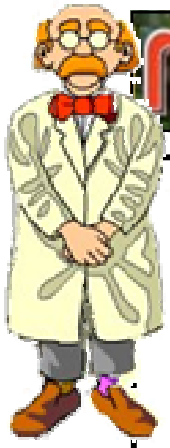


MISSION: CONTROL V2

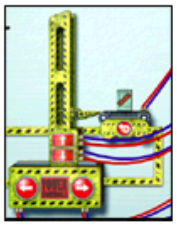
Help Professor Roberts track down the dastardly Gomez. There are nine activities which are simulated on screen; which include: controlling inputs and outputs, sequencing and writing instructions, using data sensors to monitor events, controlling motor outputs and much more.

Start

Login allows you to save and start the game from where you left off last time.
Skip Login if you don't want to save your place in the game each session.

Activities

Juicy Drinks Machine


Lifting the Heavy Box

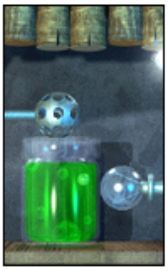

South Temple Maze


Chemical Store

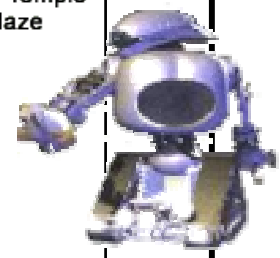

North Temple Maze


Controlling the Robot with Coloured Bulbs


Building the Bridge


Bubble and Steam Sensors


Heat Sensor



Adventure and Activity Mode

From the Teacher's Menu select the Adventure or Activity Mode. The Adventure mode allows the whole game to be played from start to finish and the Activity Mode allows each of the nine activities to be played in any order.

Also Available are Printable / Photocopiable resources

Map of West Echo Island (black & white and colour)

CTRL+Q allows you to QUIT and leave the program at anytime.

Click the GO ON button to move on to the next screen.

Activities	Features	Control Concepts Introduced
The Juicy Drinks Machine	Use Professor Roberts' drinks machine to fill a cup of juice and put the lid on. The machine is broken and to fix it the wires have to be connected to the outputs. It is vital that the different stages of the task are done in the correct order and the switches are turned off at the correct times!	Output Sequence of instructions On/off switches
Lifting Heavy Boxes	Use the lifting machine to load Dr. Esme's box into the back of the hoverheli. After connecting the wires, an on-screen computer is used to control the machine. It is important that the outputs are turned on and off in the correct order. At Level 2, the tower starts to the right and the lift starts in the up position, so these must be moved before pupils will be able to load the box.	Computer controlled outputs to control a machine
South Temple Maze	Dr. Esme's machine, Rover, needs to be programmed so that it can find its way through the South Temple Maze. A control panel enables pupils to give commands to Rover. A map of the maze helps with plotting the correct route. The complexity of the maze and the route through the maze relate to the level of difficulty at which the pupil is working.	Inputting commands Sequencing commands
The Chemical Store	The poison trucks need to moving safely to the recycling tank without polluting the river. In part one, the mouse is used to carry out one instruction at a time. In part two, pupils need to write a program for the computer to control all the lifts and doors in the correct order. At Level 2 there are different, more complex screens.	Tome delay Creating and running a control program Sequencing commands
The North Temple Maze	Plot Rover's route again, but this time through the North Temple Maze. A program needs to be devised and entered into Rover's control panel and the tested. At Level 2, the route through the maze and therefore the control program is required, is more complex than L1.	Sequencing instructions Creating, inputting and testing control programs
Switching the Robots Off	You are under attack! A set of coloured lights can be used to deactivate the robot. Pupils need to devise a control program to ensure the lights are switched on and off in the correct order and for the correct duration. At Level 1, there are two lights in the sequence and in Level 2 there are three.	More complex sequencing Reinforcement of the control program concept
Building the Bridge	Control Gomez's machine to build a bridge to the island. The machine, which is controlled by the user's computer program, builds the bridge by dropping stones one-by-one onto the supports. It is important that the delays are set carefully, so that the stones are not placed on top of each other or too far apart. Level 2 involves moving the machine backwards.	Motor outputs Forward / backward movements Repeating instructions
Bubble and Steam Sensors	In part one find out how the chemical packaging machine works, then change the program to add crystals which will make the chemicals safe. The machine works by using two sensors which detect the steam and bubbles. In part two, Gomez's programs have to be changed so that the machine will add forest crystals to the chemicals. Level two has more liquids to add to the jars.	'What if…? Concept Feedback from and response to sensors
Heat Sensors	Use a heat sensor and some coloured lights to check which of the pipes leading to the control room are too hot and which is safe to go down. A control program needs to be devised to turn a red light on if heat is detected and off if the heat source is removed. It is also important to make sure everything is done in the correct order and the program is being repeated enough times. At Level , one bulb is to be turned on when heat there is heat and off when there is no heat. Level 2 is more difficult and two bulbs are used. One bulb has to be turned on if there is heat and off when there is not heat but the other bulb has to be turned off if there is no heat and on if there is neat.	Reinforcement of 'What if…? Concept 'Repeat forever' instruction