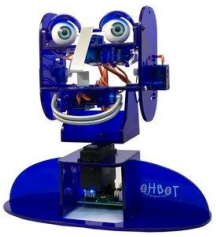
Year 6 - Lesson 1: Oh Puppet



Learning Intention

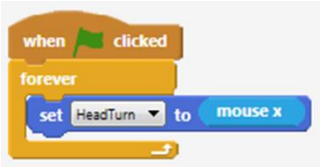
- I can program a robot to sense the position of a mouse to set its position

Introduction

This will be our final unit of work on Robotics. What projects did you cover in Year 5?
We will start Year 6 with another movement project. What ways have we learnt to make Ohbot move? (Simple movements, using the keyboard and simultaneous movements all in Year 3. In Year 4 we looked at Random movements. In Year 5 Ohbot moved in response to questions and answers.) In Year 6 we are going to start with "Wizard of Oz" robotics. This is where a human is used to simulate the response of the robot, like the film Wizard of Oz, when the wizard was operating the robot from behind a curtain. (Show film clip)

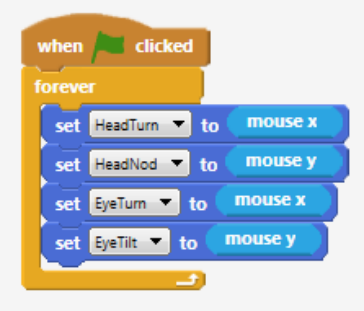
Teacher Input

We are going to make Ohbot move like a puppet. We will do this by getting Ohbot to react to a *sensor*. The *Mouse X sensor block* (In the light blue Sensor menu) gives the position of the mouse in the x axis as a number between 0 and 10. The *Mouse Y block* does the same for the Y axis. We will start with the very simplest puppet movement. Using the mouse to control turning the head from side to side.



Activity

1. Can you write a program that allows the mouse to control Ohbot's head turn and head nod motors?
2. Can you add code to your program so that the mouse controls Ohbots eye turn and eye tilt motors too?
3. Can you experiment with using the mouse and other sensor blocks to control Ohbot's mouth?



Extension

Encourage the children to think about controlling Ohbot as a robot puppet. Can they script a performance in which Ohbot speaks and moves?

Plenary

Take a look at the children's own projects. How did you use the "Wizard of Oz" control? Were you able to successfully write the code to achieve your idea?