

Year 5 - Lesson 5 Broadcasting More

Learning Intention

- I can use broadcast in my programs to make Ohbot do several things at the same time



Introduction

What did we learn to do last week? (broadcast a message). We will build on our knowledge from last week's lesson on **broadcast**. Today we will **broadcast** some new messages related to movements which will allow us to structure our code and change it easily. First, we will take another look at the **Welcome2** program. Play the demonstration code to the children. This code has been written with some broadcast instructions. What messages have been broadcast? Today we are going to write our own version of the **Welcome2** program using the **broadcast** instruction.

Teacher Input 1

First, we need to go to the **Events** palette and create a new message which we will call 'head'. We will need to use the instructions: **broadcast head and wait** and **when I receive head** as well as the usual start instruction - **when green flag clicked**. When the green flag is clicked we need to **broadcast the 'head' message** (and then wait for the head broadcast code to run). The **When I receive head** instruction will have a set of movements underneath that show off how Ohbot can move its head. **File, Save As** – 'broadcast head'.

```
when green flag clicked
  broadcast head and wait
  when I receive head
    say Watch me nod my head until done
    wait 1 secs
    say I can move my head up until done
    set HeadNod to 10
    say and down until done
    set HeadNod to 0
    wait 2 secs
    set HeadNod to 5
    say WATCH I can also shake my head until done
    set HeadTurn to 0
    say Turn right until done
    set HeadTurn to 10
    say and left until done
    set HeadTurn to 5
    wait 2 secs
```

Activity

We can have a series of broadcasts in one piece of code.

- Can you add multiple broadcasts to your code? (Next broadcast lips, then broadcast eyes to demonstrate how all of Ohbot's 7 motors work).

```
when green flag clicked
  broadcast head and wait
  broadcast lips and wait
  broadcast eyes and wait
  when I receive head
    say Watch me nod my head until done
  when I receive lips
    say Watch me move my lips until done
  when I receive eyes
    say Watch me move my eyes until done
```

Here is a skeleton program. The program broadcasts 3 messages. You need to complete the code for each message

You can change the order of the broadcast instructions and make the sequences run in a different order. You can also run a sequence more than once without having to duplicate all the instructions. By using messages you can see that your code is easier to change and has a better structure.

Activity 2. Can you make Ohbot move in a different order and repeat one of the sequences?

File, Save As – ‘broadcast 3 moves’.

Extension

Can you take this one step further by adding another **broadcast** at the start of the code. We will call this broadcast “welcome.” Welcome needs to introduce Ohbot the robot and include sound effects.

Plenary

How did you find today’s lesson? (Thumbs up, down, middle). Show your partner today’s program. Does your program show off Ohbot’s movements fully?

