**Step-by-Step**

**Activity 2 Part 1**

Simulate MiRo to output a sequence of sounds when the input ‘clap’ is heard.

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| **Step** | **Block** | **From** | **Connect** |
| **1**  Add **1** x **program start** block |  |  |  |
| **2**  Add **1** x **Periodic Control Loop** block |  |  |  |
| **3**  Add **1** x **if do** block |  |  |  |
| **4**  Add **‘else’**  Click the blue settings icon  Click and drag an ‘else’ block from the left and connect under the ‘if’ on the right  Click the blue settings icon to close the pop up | | |  |
| **5**  Add **1** x **clap detected in previous 2 seconds** block |  |  |  |
| **6**  Change the number of seconds to 1 | | |  |
| **7**  Add **1** x **Raise/Lower Head Raise** block |  |  |  |
| **8**  Add **1** x **wag tail slow for 3 seconds** block |  |  |  |
| **9**  Set the tail to wag ‘fastest’ and for 2 seconds | | |  |
| **10**  Add **1** x **Raise/Lower Head Raise** block |  |  |  |
| **11**  Click  **Robot Play**  OR  **Simulator Play** | | |  |
| **Follow a program** | **Script at bottom of screen shows code is ready and waiting for the ‘clap’** | **Simulate the clap by clicking this icon**  **OR**  **With physical MiRo - clap your hands** | **Script at bottom shows program ran correctly.** |
| **Observe the output:**   |  |  |  |  | | --- | --- | --- | --- | | **Test** | **Expected outcome** | **Actual outcome** | **Action** | | Within 1 second of clap. | Head raises and tail wags |  |  | | After 1 second of clap | Head lowers and tail stops |  |  | | | | |

**Activity 2 part 2**

Within this activity the use of colour is added to the program to simulate the mood when MiRo raises and lowers its head.

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| **Step** | **Block** | **From** | **Connect** |
| **1**  Add **2** x **change front led** block |  |  |  |
| **2**  Set from ‘change front’ to ‘change all’ on the drop-down menu | | |  |
| **3**  Click  **Robot Play**  OR  **Simulator Play** | | |  |
| **Follow a program** | **Script at bottom of screen shows code is ready and waiting for the ‘clap’** | **Simulate the clap by clicking this icon**  **OR**  **With physical MiRo - clap your hands** | **Script at bottom shows program ran correctly.** |
| **Observe the output**   |  |  |  |  | | --- | --- | --- | --- | | **Test** | **Expected outcome** | **Actual outcome** | **Action** | | Within 1 second of clap. | Head raises, tail wags and lights green |  |  | | After 1 second of clap | Head lowers, tail stops and lights red |  |  | | | | |
| **Debugging**  From your test table you will find that the colour red is used in both blocks.  Click the button above the block code with the word ‘Blockly’ on it and switch the screen to ‘python’. | |  | |
| Lick the ‘Edit Code’ button.  Identify where the colour code ‘#ff0000’ is used. It is used in 6 different locations.  The first three are the ones you need to edit to a new colour.  RGB stands for Red, Green, Blue and the numbers or letters identify how much of each colour is added to make up the new colour. | |  | |
| Edit the colour code to:  #00ff00  Test your program - Click ‘Play’ from python view | |  | |
| <https://www.w3schools.com/colors/colors_picker.asp>  Find another RGB colour code and try it out by editing the python code.  Try changing each code to a different RGB colour code. | |  | |