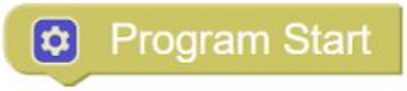
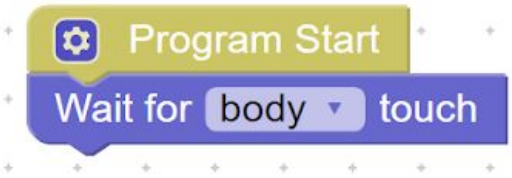
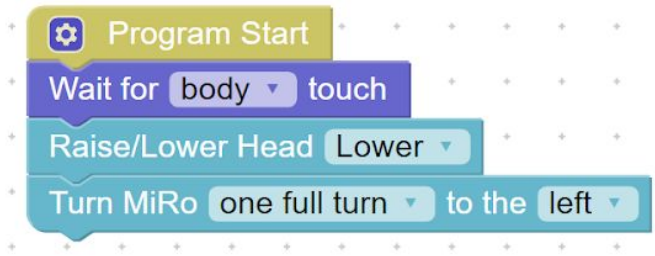
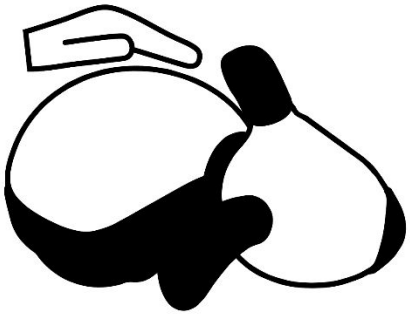
Step-by-Step

Simulate MiRo to play a range of sounds in the MiRo simulator

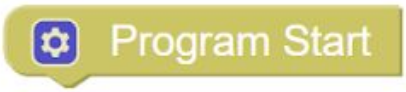
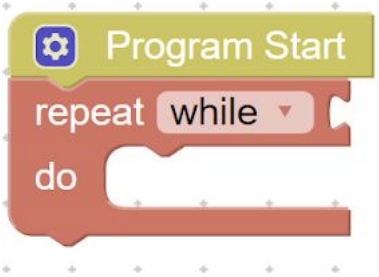
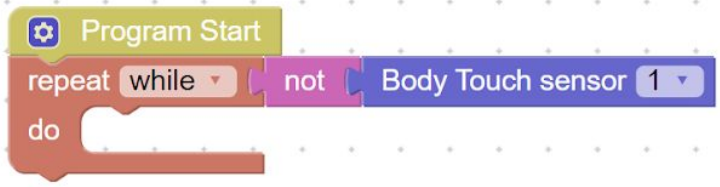
Program 1 - part (a)

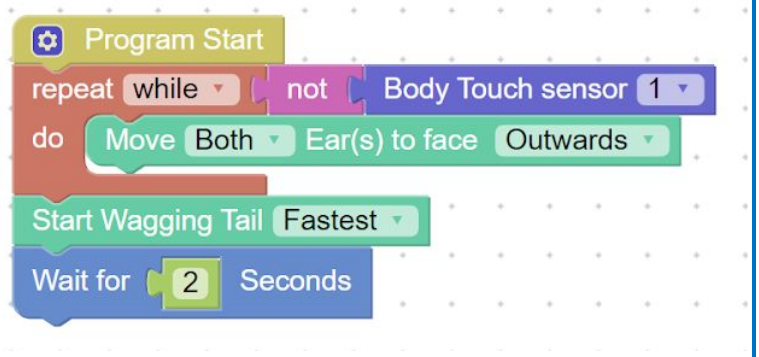
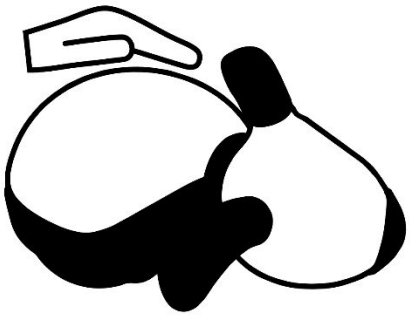
Step	Image
1 – Set Up ● Add **Program Start** from **Setup.**	
2 – Add Sensor ● Add **Wait for [body] touch** from **sensors.** ● Connect to the **Program Start** block.	
3 – Add head movement ● Add **Raise/Lower Head [Raise]** from **simple motion.** ● Set to **Lower.** ● Connect to the **Wait for body touch** block	
4 – Add body movement ● Add **Turn MiRo [one quarter turn] to the [left]** from **simple motion**. ● Set to **one full turn.** ● Connect to **Raise/Lower Head [Lower]** block.	
10 – Simulate Click **Simulator** and run your program to see if your prediction was correct. Click Cancel to stop the simulation. To start the simulation again you can reset the world.	
Modify	What can you modify within the blocks? What effect does this have?

part (b)

Step 1 - Flip to Python code by clicking on the **python** button. **Can you see the code for the full turn?** **Can you edit this to do a half turn?**	
Step 5 Run your program Experiment with the settings and investigate: ◆ Change the degrees of the turn to see the different outputs.	

Program 2 - part (a)

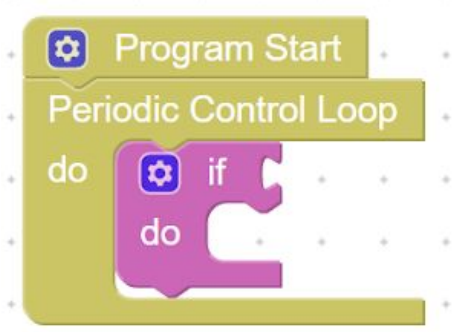
Step	Image
1 – Set Up ● Add **Program Start** from **Setup.**	
2 – Add Loop ● Add **repeat [while]** from **loops.** ● Connect to the **Program Start** block.	
3 – Add conditional statement ● Add **not** from **logic.** ● Connect to the **repeat [while]** block. ● Add **Body Touch sensor [0]** from **sensors.** ● Set to **1.** ● Connect to **not** block.	

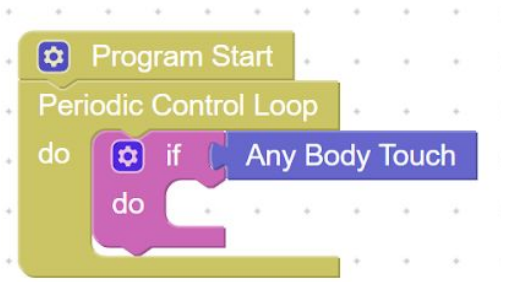
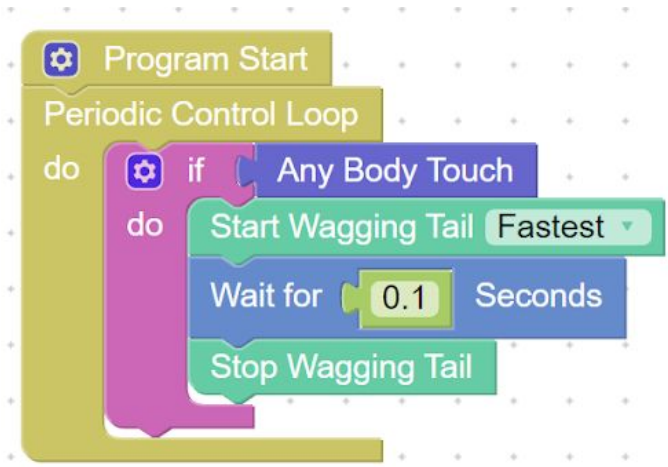
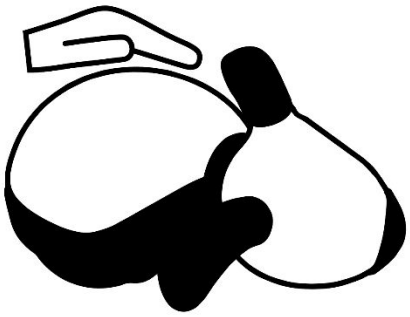
4 – Add output if true ● Add **Move [Left] Ear(s) to face [Forwards]** from **emotion.** ● Set to **Move [Both] Ear(s) to face [Outwards].** ● Connect into the **repeat [while]** block.	
4 – Add output if false ● Add **Start Wagging Tail [Slowly]** from **emotion.** ● Set to **Fastest.** ● Connect after the **repeat [while]** block. ● Add **Wait for [1] second** from **time.** ● Set to **2.** ● Connect to **Start Wagging Tail [Fastest]** block.	
10 – Simulate Click **Simulator** and run your program to see if your prediction was correct. Click Cancel to stop the simulation. To start the simulation again you can reset the world.	
Modify	What can you modify within the blocks? What effect does this have?

part (b)

Step 1 - Flip to Python code by clicking on the **python** button. **Can you change the time set?**	
Step 5 Run your program Experiment with the settings and investigate: ◆ Change the time used to see the different outputs.	

Program 3 - part (a)

Step	Image
1 – Set Up ● Add **Program Start** from **setup.** ● Add **Periodic Control Loop** from **setup.** ● Connect to **Program Start** block.	
2 – Add Selection ● Add **if do** from **logic.** ● Connect into the **Periodic Control Loop** block.	

3 – Add conditional statement ● Add **Any Body Touch** from **sensors.** ● Connect to the **if** block.	
4 – Add output if true ● Add **Start Wagging Tail [Slowly]** from **emotion.** ● Set to **Fastest.** ● Connect into the **if do** block. ● Add **Wait for [1] second** from **time.** ● Set to **0.1.** ● Connect to **Start Wagging Tail [Fastest]** block. ● Add **Stop Wagging Tail** from **emotion.** ● Connect to **Wait for [0.1] seconds** block**.**	
10 – Simulate Click **Simulator** and run your program to see if your prediction was correct. Click Cancel to stop the simulation. To start the simulation again you can reset the world.	
Modify	What can you modify within the blocks? What effect does this have?

part (b)

Step 1 -

Flip to Python code by clicking on the **python** button.

Can you narrate the code?

Step 5

Run your program

Experiment with the settings and investigate.