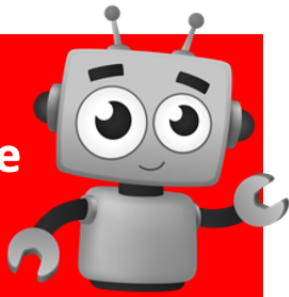


Artificial Intelligence



Face Detection

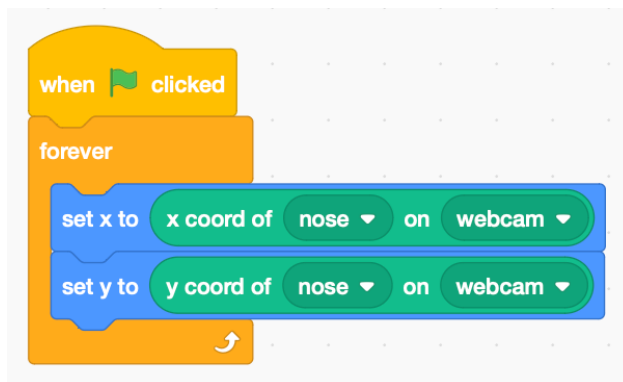
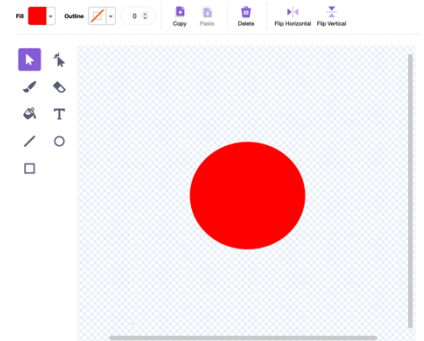
Detect your face in the computer's camera.



- Open <https://scratch.machinelearningforkids.co.uk> (you can't login like normal Scratch)

- Press the Add Extension button and add the Face Detection extension.

- Create a new sprite with the paint tool. Create a red clown nose in the centre of the sprite.

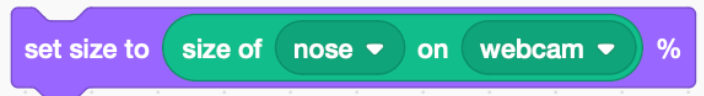


- Add code to detect the position of your nose and move the red nose to that x,y position. The loop is needed so it works when you move around.

- Press the green flag to run it. You might have to give the computer permission to use the camera.

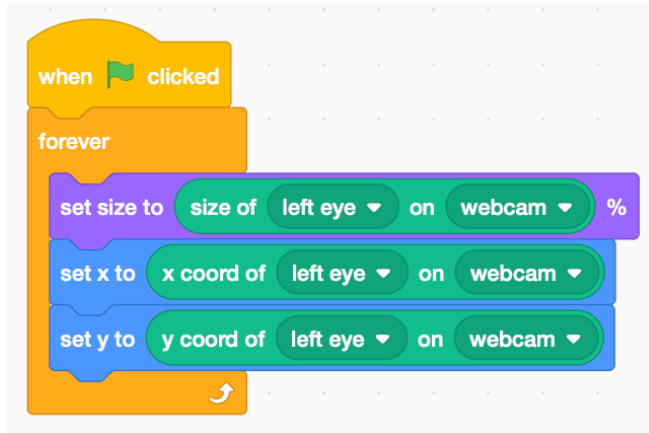
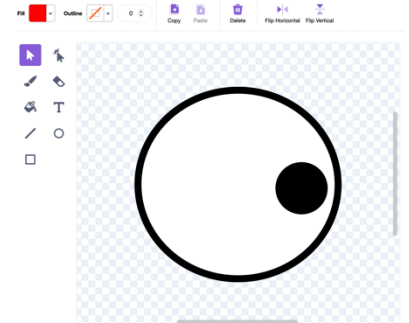
Move your face closer to the camera. The red nose might be too small to cover your real nose. Move backwards – now it looks too big.

- Add code to the loop to adjust the size according to the size of your nose on camera.



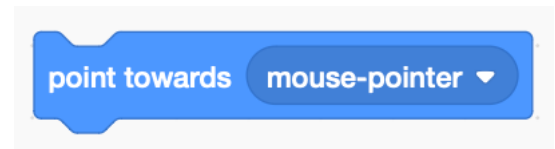
It can also detect the position of your eyes

- ☐ Create a new sprite using the paint tool. Make an eye looking to the right.



- ☐ Copy code from the nose sprite and change it to detect your **left eye**.

- ☐ Add code inside the loop to turn the eyes to look towards the mouse.



- ☐ Copy the whole sprite and adjust it to detect your **right eye**.

*What graphic can you add to use the mouth detection?
Your mouth will appear at the centre of the sprite,
so use it as a reference point.*

*Your code isn't saved to Scratch. Save it on a **USB drive**.*