Artificial Intelligence
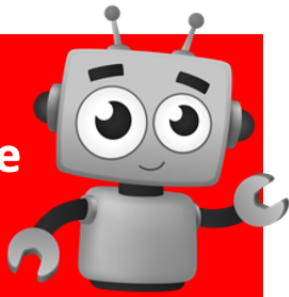
Face Detection

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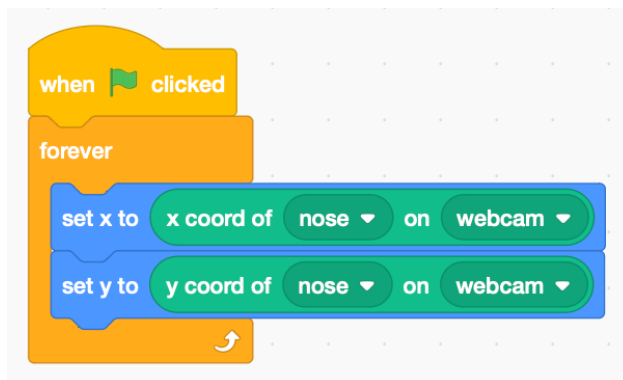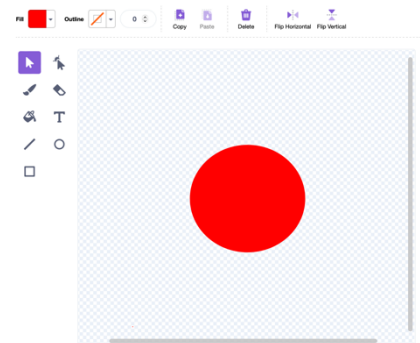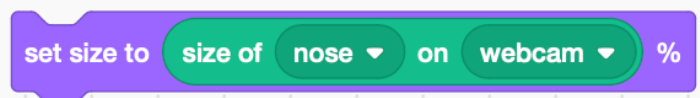
- **Add code to detect the position of your nose and move the red nose to that x,y position. The loop is needed so it works when you move around.**

- **Press the green flag to run it. You might have to give the computer permission to use the camera.**
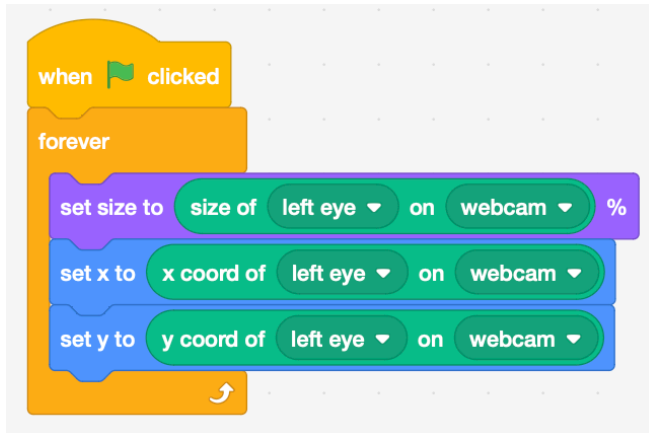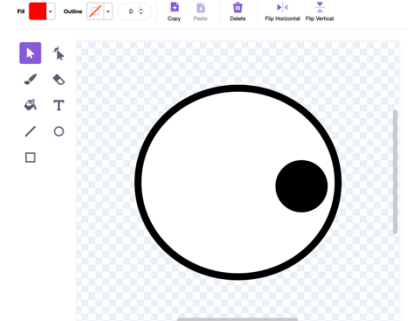
Move your face closer to the camera. The red nose might be too small to cover your real nose. Move backwards – now it looks too big.

- **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.

when 🏳 clicked
forever
  set size to (size of (left eye ▼) on (webcam ▼)) %
  set x to (x coord of (left eye ▼) on (webcam ▼))
  set y to (y coord of (left eye ▼) on (webcam ▼))

▪ 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.

point towards (mouse-pointer ▼)
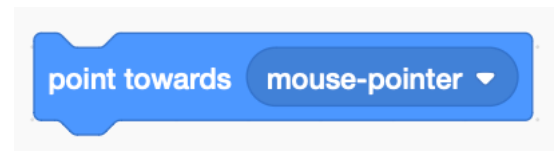
- Copy the whole sprite and adjust it to detect your **right eye**.

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.**