ACTIVITY SHEET

SESSION 20

Face Expression Recognition

In this session, we will make a script that detects your face from the device camera (computer/mobile), and reports the type of emotion that you are expressing on your face, on the PictoBlox stage.

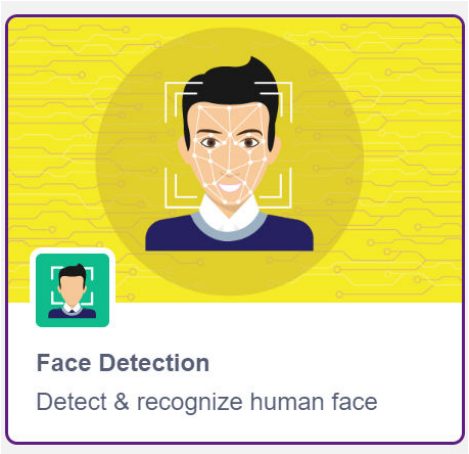
This activity sheet belongs to _____

MATERIALS REQUIRED

- ☐ Computer/Laptop/Tab with PictoBlox installed
- ☐ USB Cable
- ☐ Quarky Robot

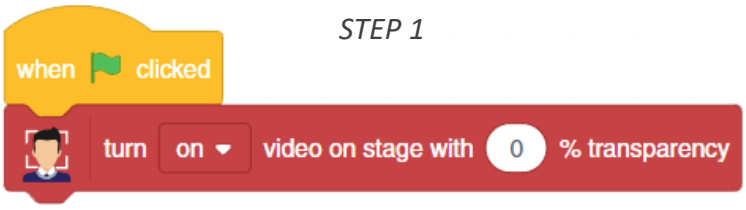
STEP-BY-STEP

1. **Setting Up the Stage:**
   - **1.1.** Add a new sprite called **Square Box,** by clicking on **Choose a Sprite** (bottom right corner)**.**
   - **1.2.** Delete the **Tobi** Sprite (As done in the previous session).
   - **1.3.** Drag and drop a **when flag clicked** block into the scripting area.
   - **1.4.** Add **Face Detection** Extension by clicking on the **Add Extension** button.
   - **1.5.** Add a **turn () video on stage with () transparency** block from the **Face Detection** palette. Select the camera option to (**on)** and transparency to **(0)**%. *The stage is set. Click the **green flag** to get the camera feed on the stage.*



2. **Recognizing the Image:**
   - **2.1.** Add a **forever** block from the Control palette.
   - **2.2.** Add an **analyse image from ()** block. Select **camera** from the dropdown. *This block will help recognize, the image being displayed on the camera.*

STEP 1



3. **Display Emotions and Tracking:**

3.1. Add a **say ()** block from the Looks palette. Add a **get expression of face ()** block from the Face detection palette in the input of **say ()** block and keep the dropdown to number **1** (for the number of face detected).

3.2. Then, add a **set x to ()** block from the Motion palette. Add a **get () of face ()** block from the Face Detection palette in its input. Change the first parameter to **x position** and keep the second parameter to number **1** (for the serial number of face detected).

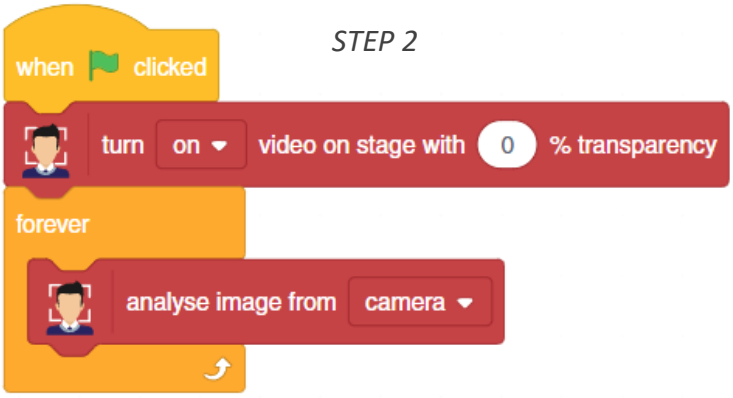
3.3. Next, add a **set y to ()** block from the Motion palette. Add a **get () of face ()** block in its input. Change the first parameter to **y position** and keep the second parameter to number **1** (for the serial number of face detected).

3.4. Add a **set size to () %** block from the Looks palette.

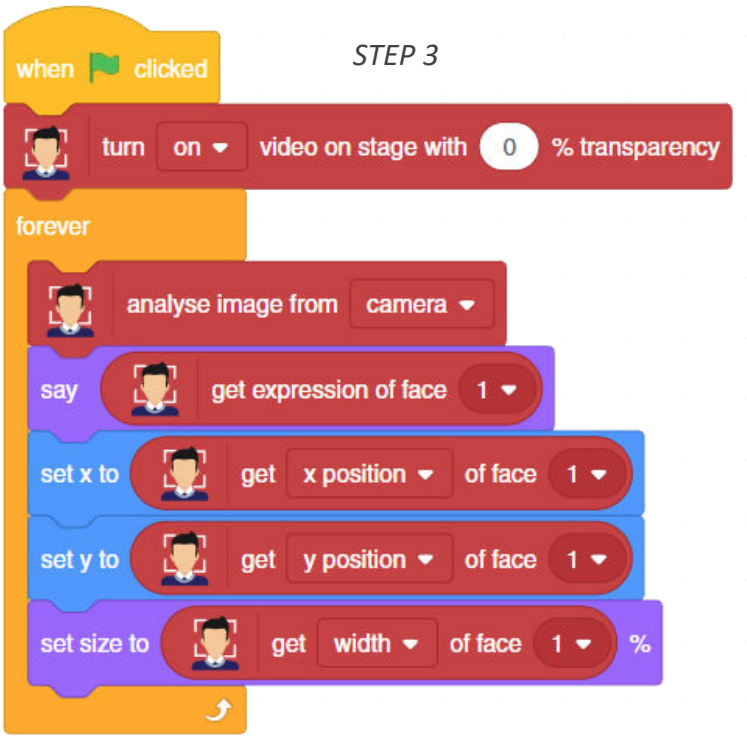
3.5. Next, add **get () of the face ()** block from the Face Detection palette. Select the first parameter as **width** and keep the second parameter to number **1** (for the serial number of face detected).

4. Click the **green flag** to start the script. Make different expressions on the camera to detect them.

STEP 2



STEP 3



SAVING THE PROGRAM

Save the project file: **Face Expression Recognition,** by clicking on **File -> Save**.