

ACTIVITY SHEET



SESSION 9

Traffic Lights with Quarky

In this activity, we're going to see how we can display a custom pattern on the matrix by making a script to display a Traffic Light.

This activity sheet belongs to _____

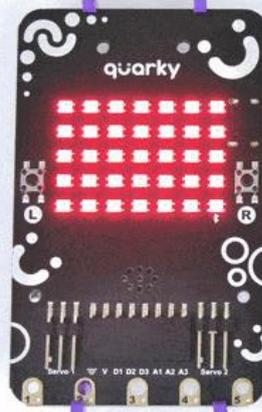
MATERIALS REQUIRED

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

STEP-BY-STEP

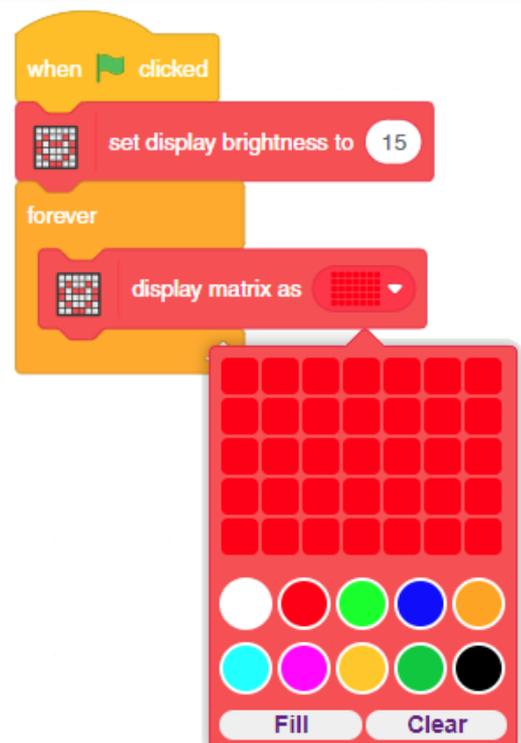
Follow the steps below:

1. Let's begin by first connecting Quarky to PictoBlox.
 - 1.1. First, connect **Quarky** to your laptop using **USB cable**.
 - 1.2. Open **PictoBlox** and create a new file. Select the coding environment as **Block Coding**.
 - 1.3. Select the **Board** as **Quarky**. Next, select the **Serial port** to connect Quarky and press **Connect**.
2. Drag and drop a **when flag clicked** block into the scripting area from the **Events** palette.
3. Below the **when flag clicked** block, add the **set display brightness to ()** block. In the space write **15**.
4. Add a **forever** block from the **Control** palette below the **set display brightness to ()** block.
5. Inside the **forever** block, add a **display matrix as ()** block from the **Display** extension. Fill the matrix with **red** color.
6. Add **wait () seconds** block under the **display matrix as ()** block and set the waiting time as **5** seconds.
7. Go to the **Display** extension and add a **display () with ()** block into the scripting area. In the space, enter **2**. Then, set the color of the LED to **yellow**-color from the drop-down.
8. Add another **wait () seconds** block under the **display () with ()** block and set the waiting time as **1** second.

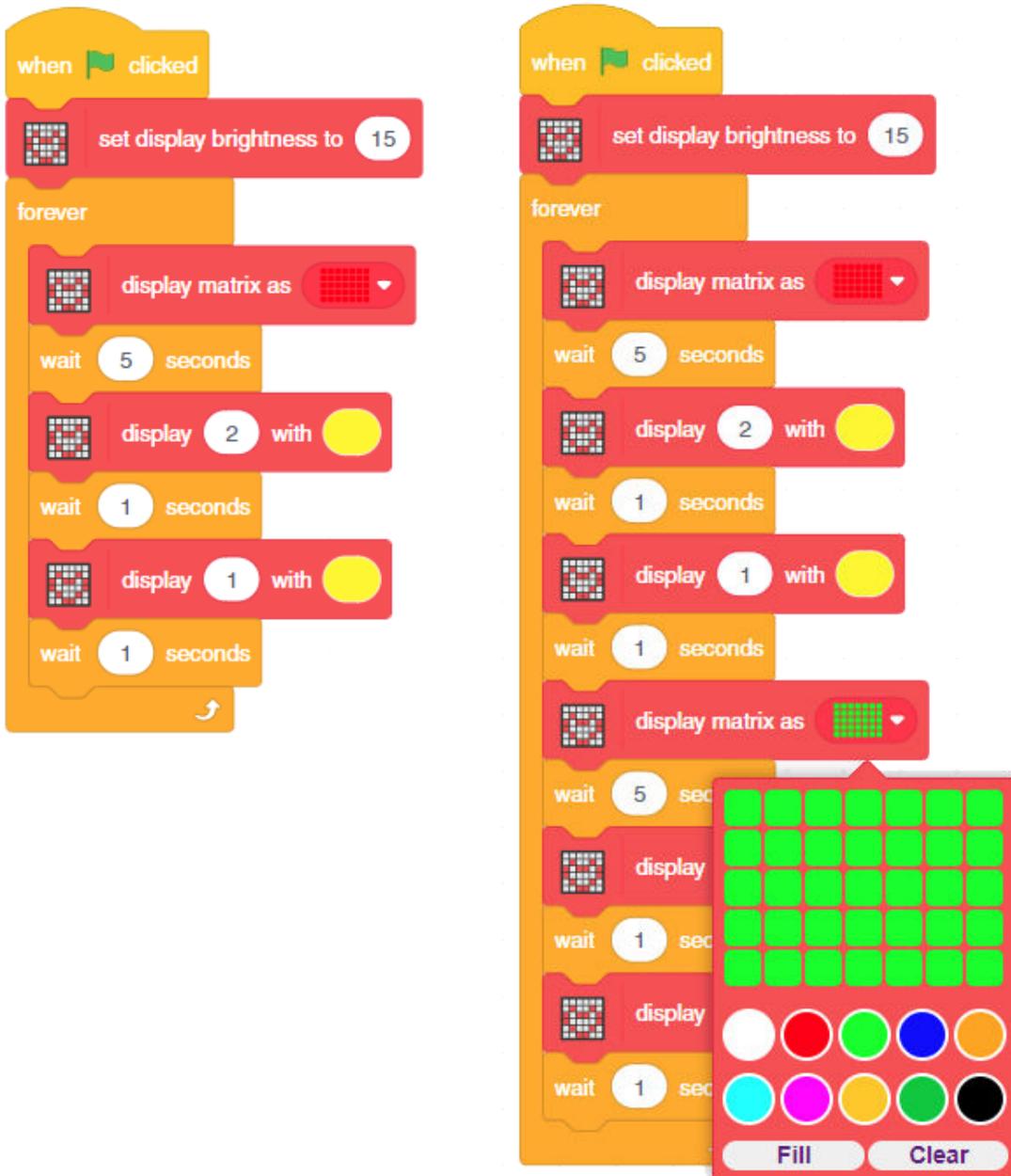


Traffic Light

- Red - 5 Seconds
- Yellow - 2 Seconds
- Green - 5 Seconds
- Yellow - 2 Seconds



9. Now add another **display () with ()** block below **wait () seconds** block into the scripting area. In the space, enter **1**. Then, set the color of the LED to **yellow**.
10. Again, add another **wait () seconds** block under the **display () with ()** block and set the waiting time as **1 second**.
11. Right-click on the **display matrix as ()** block and duplicate the code. Set the color as **Green**.



12. Run the script by clicking the **green flag**.

SAVING THE PROGRAM

Save the project file as **Traffic Light**. Check page 3 if you missed how to save the project.