ACTIVITY SHEET

SESSION 4

Space Battle Game

Part 3

In this activity, we are going to write two scripts, first to create multiple ghosts on the stage, and the second script to assign various actions to the ghosts.

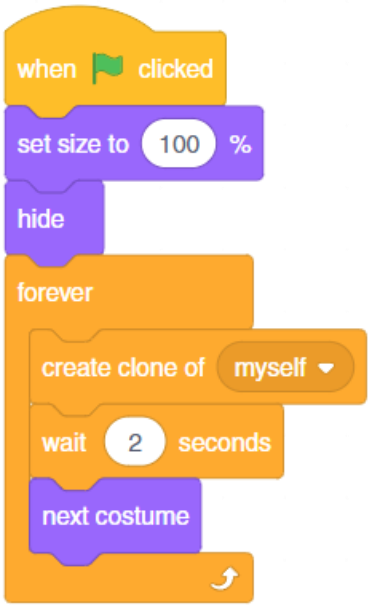
This activity sheet belongs to _____

MATERIALS REQUIRED

□ Computer/Laptop/Tab with PictoBlox installed

STEP-BY-STEP

1. Open the PictoBlox file "**Space Battle Game**", we made in the last session.
2. **Script for creating multiple ghosts:**
   - **2.1.** Make sure that **Ghost sprite** is selected.
   - **2.2.** Add a **when green flag clicked** block from the Events palette on the scripting area.
   - **2.3.** Add **set size to () %** block from the Looks palette below the **when green flag** clicked block. Set the size as **100%**.
   - **2.4.** Add a **hide** block from the Looks palette. This block allows us to hide the **Bullet** until we press the **space button** to shoot it.
   - **2.5.** Drag and drop the **forever** block from the Control palette.
   - **2.6.** Inside the **forever** block, Add the **create clone of ()** block from the Control palette. Also add the **wait ()** seconds block and set the time to **2** seconds.
   - **2.7.** Finally, drag and drop the **next costume** block. This will allow you to produce ghosts of different types, in your game.



3. **Assigning actions to ghosts:** We want the ghosts to randomly appear from the top of the stage and gradually move downwards, until either they reach the bottom of the stage or you shoot them down. Also, if they are hit by the bullet, they should disappear; however, if any one of them touches our Rocketship, we lose, hence the game should stop!
   - **3.1.** Drag and drop the **when I start as a clone** block from the Control palette.
   - **3.2.** Add **go to x () y ()** block from the Motion palette to set the position of the **Ghosts**.
   - **3.3.** Add the **pick random () to ()** block from the Operator palette in the first "()" of **go to x () y ()** block and set the values inside it as **-200** to **200**. *This will pick a random position, along the horizontal direction, for the ghost to appear.*
   - **3.4.** Inside **y:** write **100**.
   - **3.5.** Add a **show** block from the Looks palette.
   - **3.6.** To make the ghosts move in the downward direction until they reach the edge:
     - **3.6.1.** Drag and drop a **repeat until** block from the Control palette.
     - **3.6.2.** Add a **touching ()?** block from the Sensing palette and choose **edge** from the dropdown.

3.6.3. Also, add a change **y by ()** block from the Motion palette and set it to **-1**. *This will make the ghosts move in the vertical y-direction by -1 step, on each cycle of the **repeat until ()** block.*

3.7. To delete the ghost when it touches a bullet:

3.7.1. Add an **if () then** block from the Control palette.

3.7.2. Add a **touching ()?** block from the Sensing palette (as the condition for **if () then** block) and choose **Bullet** from the dropdown.

3.7.3. Add the block **delete this clone** to delete a particular clone of **ghost** as soon as a bullet touches it.

3.8. To stop the game as soon as a **ghost** touches the **Rocketship**:

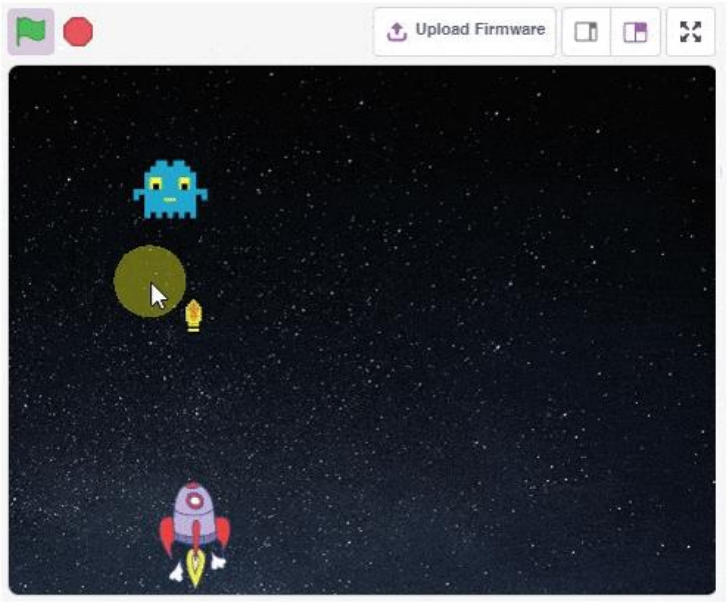
3.8.1. Add another **if () then** block.

3.8.2. As the condition, we add a **touching ()?** block and choose **Rocketship** from the dropdown.

3.8.3. Finally, we add **stop ()** block from the Control palette, inside the **if () then block** and choose **all** from the dropdown.

3.9. Finally, add a **delete this clone** block from the Control palette, after the **repeat until** block. *This will delete the ghosts as soon as they touch the **edge**.*

4. Hurray… Our game is finally ready! Click **the green flag** and play!



SAVING THE PROGRAM

Save the project file as **Space Battle Game**. Check page 3 if you missed how to save the project.