

Design the Screen Layouts – Part III

Hi everyone! Welcome back again!

In our last video, we have started designing the main screen layout and added few important sprites to it. In this video, we will continue adding more sprites to the main screen layout.

Now, we will add human beings to the Main screen layout. They will be used as preys by the pathogens as the humans are liable to get infected by them. Repeat the steps for adding new objects. Keep checking to see that only the Object Layer is selected. Now double-click on the layout to open the Insert new object window. Select 'Sprite' option, name it 'Human1' and click on insert. Now click on the screen to open the image editor and from the upload section, upload an image of the first human figure downloaded from the internet. Resize the human image appropriately using anchor points. Drag to place it on the anywhere on the screen. Repeat this step for adding more humans to make it look like a crowded place. In my case I am adding 4 more different humans and naming them 'Human2', 'Human3', 'Human4' & 'Human5' respectively. Duplicate some of them using CTRL + Mouse Left-Click on Image + Drag & Drop on screen, just like we did earlier for the pathogens.

We can now start adding behaviors to these objects present in the Main Screen layout. Behaviors add pre-packaged functionality to object types. For example, I want to move my human in all directions using arrow keys. To do this, we can choose a behavior named '8 Direction' which allows an object to move around in all directions using the arrow keys. Behaviors are not intended to do everything in your game for you. They are essentially time-savers and shortcuts. Let's try to add a behavior to our 'Virus' pathogen first. Select the Virus sprite by clicking on it. In the properties window on the left side of the screen, you'll see an option of Behaviors, click on it to open a new window of behaviors. Now click on the '+' button to open another window named 'Add Behavior'. You can select the required behavior for your Virus sprite from here. In this case, we need to use 'Bullet' behavior. The bullet behavior moves the object forward at its current angle. So, select the bullet behavior and click on 'Add' button. After adding this, close the other window too. Your bullet behavior is added to your Virus sprite.

Similarly, add the bullet behavior to all the pathogen i.e. bacteria, protozoa and worm. Your chosen behavior will automatically get applied to the duplicates too. Now change the properties in the behavior for pathogens. You can see the properties of the behavior added by you for any sprite by selecting the sprite and looking in the left pane window under the behavior section. This is the place where you will be able to change the properties on the object like speed, gravity, acceleration etc. Let's change the speed of all our pathogen from 400 to 3 and gravity from 0 to 3 so that they move slowly and fall down easily. Similarly, change the speed & gravity of bacteria, protozoa and worm.

Having accomplished this, we will now try adding 2 behaviors to our 'antibody capsules' too. Follow the same step as done in case of pathogens. Select the anti-bacteria sprite by clicking on it on the right side window. In the properties window on the left side of screen, you'll see an option of Behaviors, click on it to open a new window of behaviors. Now click on the '+' button to open another window named 'Add Behavior'. Select the 'Bullet' behavior by scrolling down and click on 'Add' button. Again, click on the '+' button to open the same window, scroll down to select 'Destroy outside layout' behavior and click on 'Add' button again. Now, I can see 2 behaviors added for my anti-bacteria capsule. Destroy outside layout behavior automatically destroys the capsule if it leaves the layout area. After adding this, close the window. Similarly, add these 2 behaviors to all the antibodies i.e. anti-Protozoa, anti-Worm & anti-Virus capsules.

Next, let's add 2 behaviors to our 'medicine box' also. Follow the same step as in the case of capsules. Select the box sprite by clicking on it. In the properties window click on Behaviors to open a new window. Now click on the '+' button to open 'Add Behavior' window. Select the '8 Direction' behavior from movement section and click on 'Add' button. Again, click on the '+' button to open the same window, scroll down to select 'Bound to layout' behavior and click on 'Add' button again. Now, I can see 2 behaviors added to my medicine box capsule. 8 Direction behavior moves the medicine box up, down, left, right, and diagonally whereas Bound to layout stops the medicine box from leaving the layout.

You can see the properties of the behavior added by you for any sprite by selecting the sprite and looking in the left pane window under the behavior section. You can edit the behavior properties of the sprite like speed, acceleration, gravity etc. Let's change the 'Set Angle' of the medicine box from 360 degrees to No so that only the box moves but will not rotate. Follow the same steps as done previously for changing the properties.

Next, let's add a behavior to our 'Boom Effect'. Select the Boom effect sprite by clicking on it. In the properties window on the left side of screen, you'll see an option of Behaviors, click on it to open a new window of behaviors. Now click on the '+' button to open another window named 'Add Behavior'. You can select the required behavior for your Boom Effect sprite from here. In this case, we need to use 'Fade' behavior. The fade behavior changes the object opacity over time to make it gradually disappear. So, select the fade behavior and click on 'Add' button. After adding this, close the other window too. Your fade behavior is added in your Boom effect sprite. We are now ready to test our game to see if everything is working fine so far.

Great! I can see my Main screen is working fine with the sprites behaving in the right manner.

In our next video, we will continue adding more sprites to the other layer of the Main screen layout.

Bye-Bye! See you in the next video!