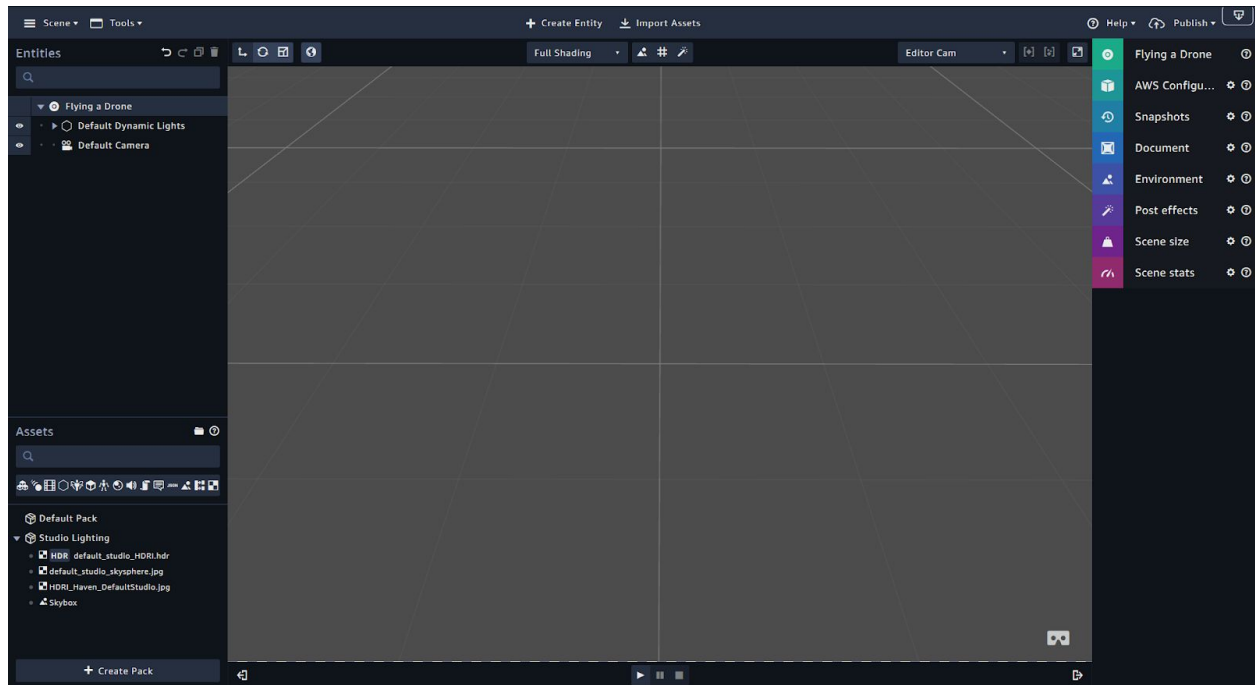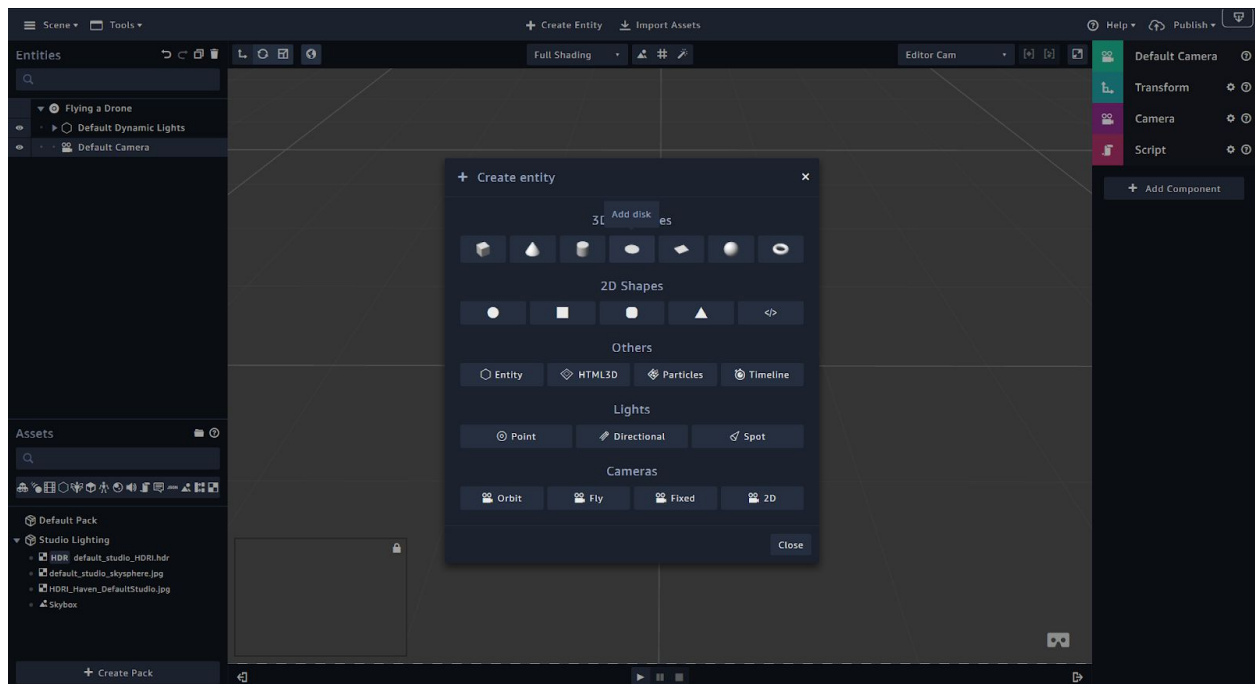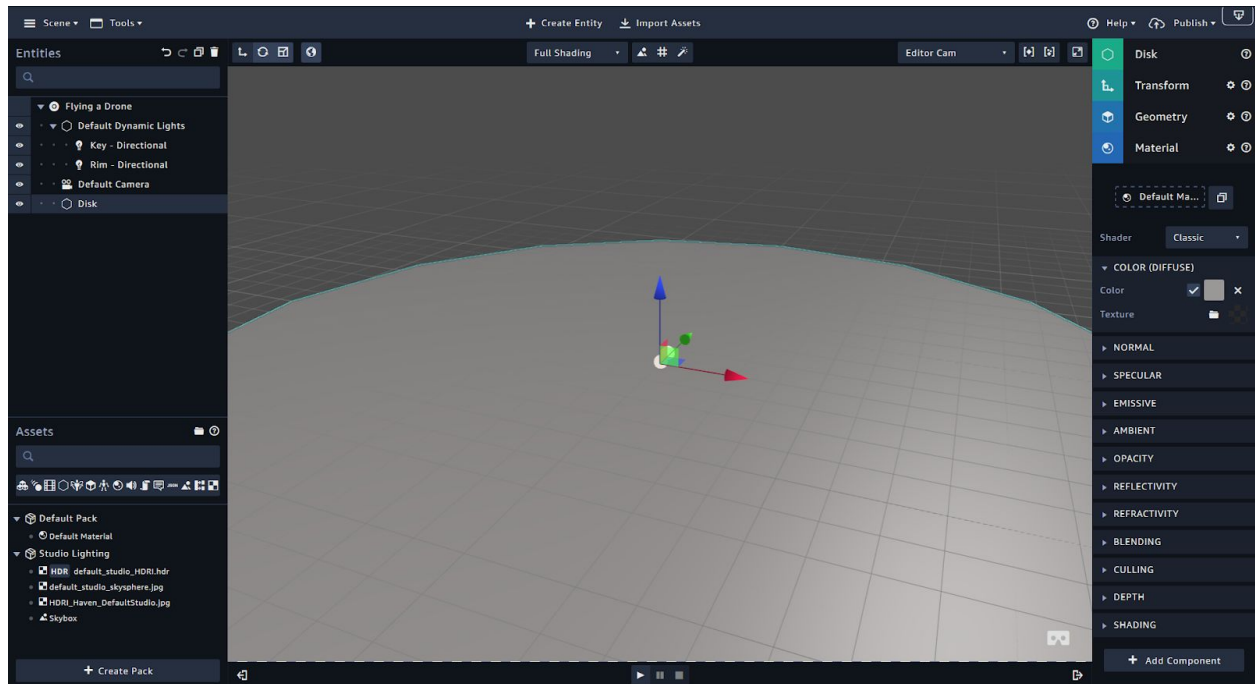# Create a Flying Drone Using the State Machine in Amazon Sumerian
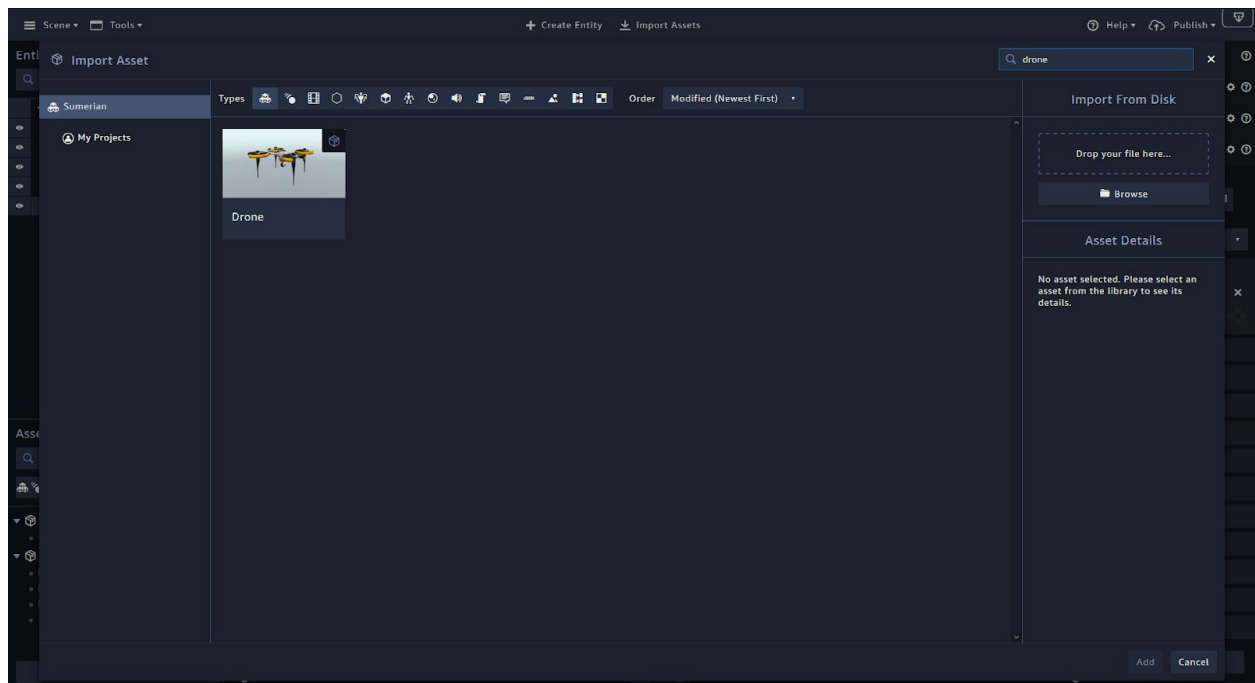

From the default lighting scene template, give the project a name and Create.

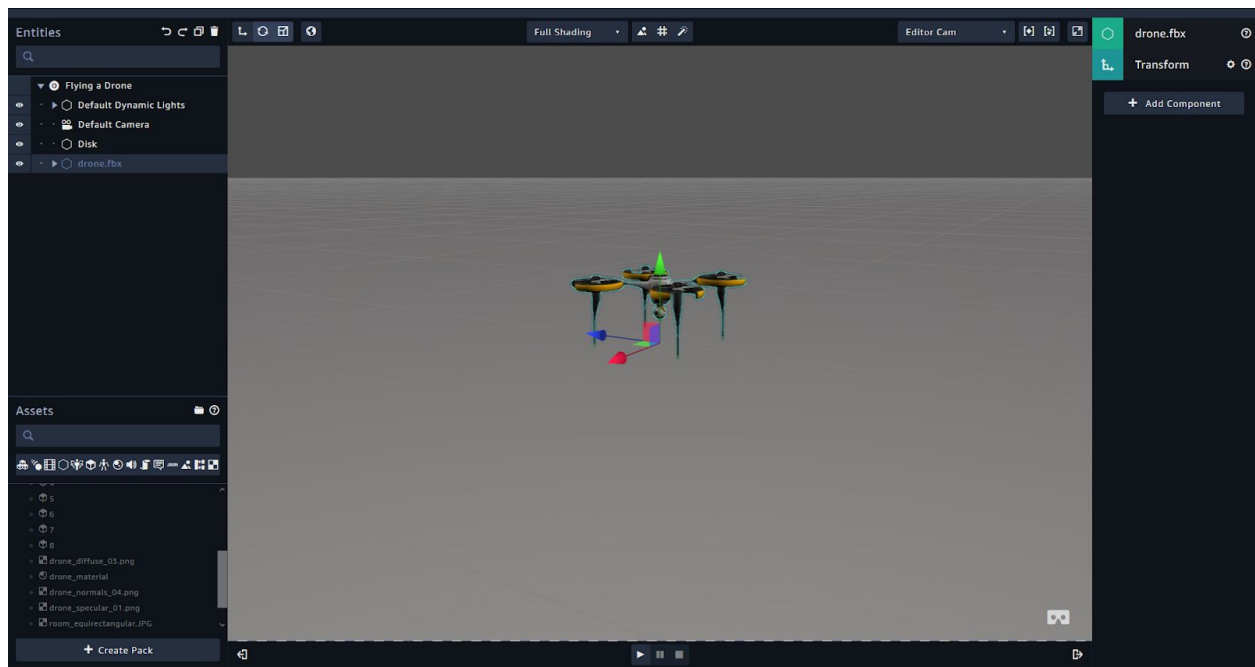To create a ground for objects to rest on, select entity and then Add disk.

Change the rotation to -90, click Uniform scale, and set scale to 1000. Change the color to a darker gray.
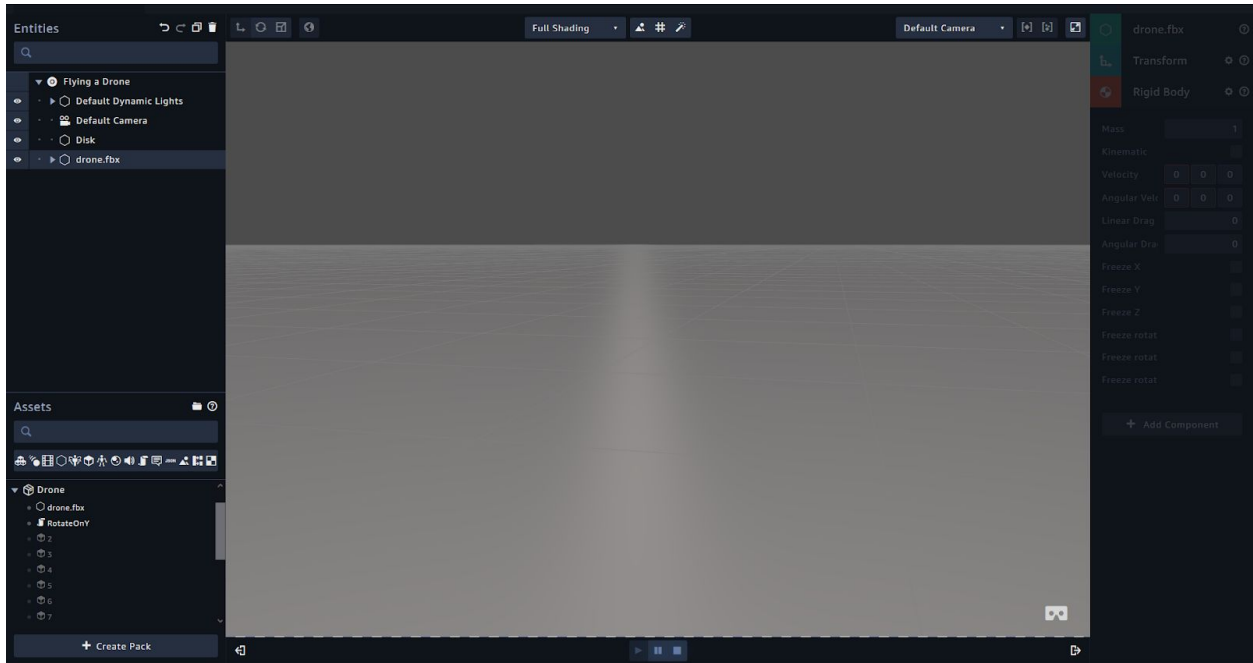

Import an Asset at the top of the screen. Type drone to find the public asset.
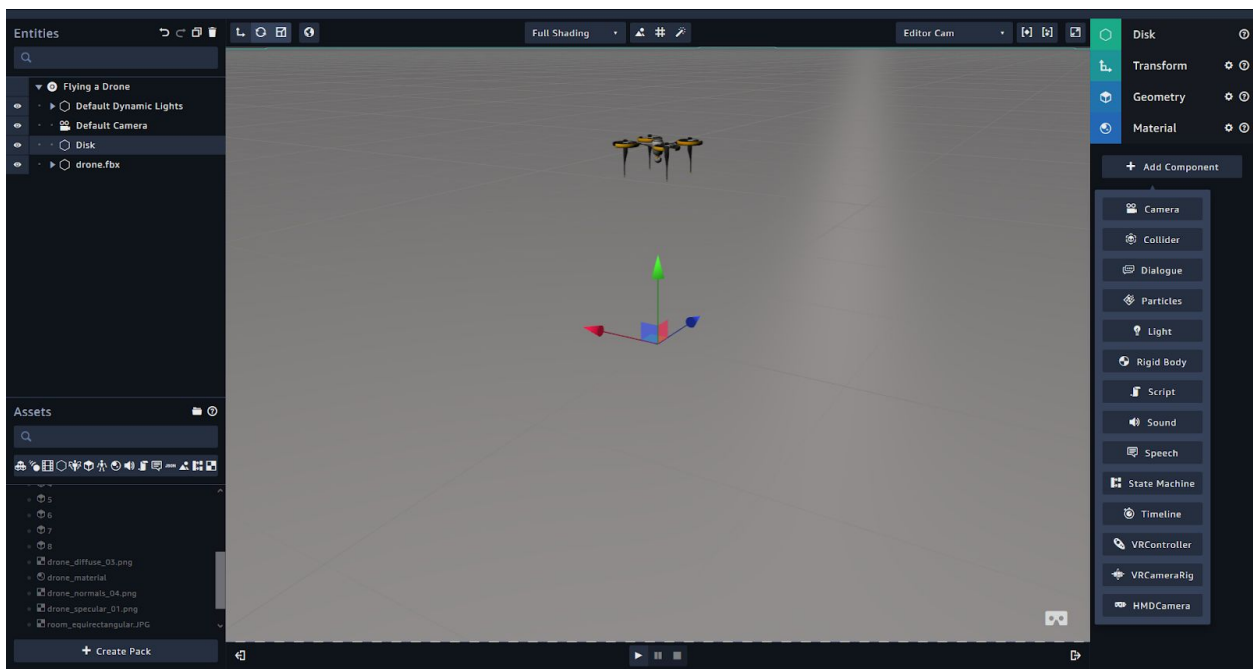
Grab the drone fbx object and drag to the scene.

In the Entities panel, select drone.fbx to select the entire model. Then on the right panel select Add Component - Rigid Body.
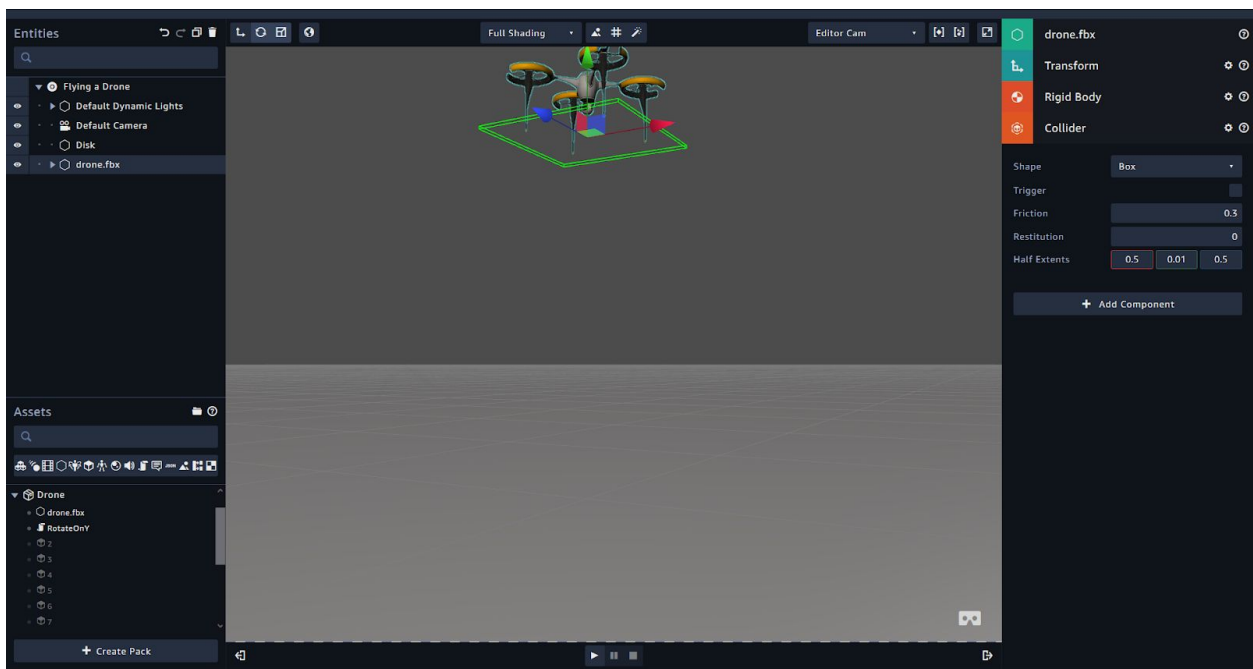
The drone should fall through the floor if Play is pressed. The Drone and Floor will need collider components.
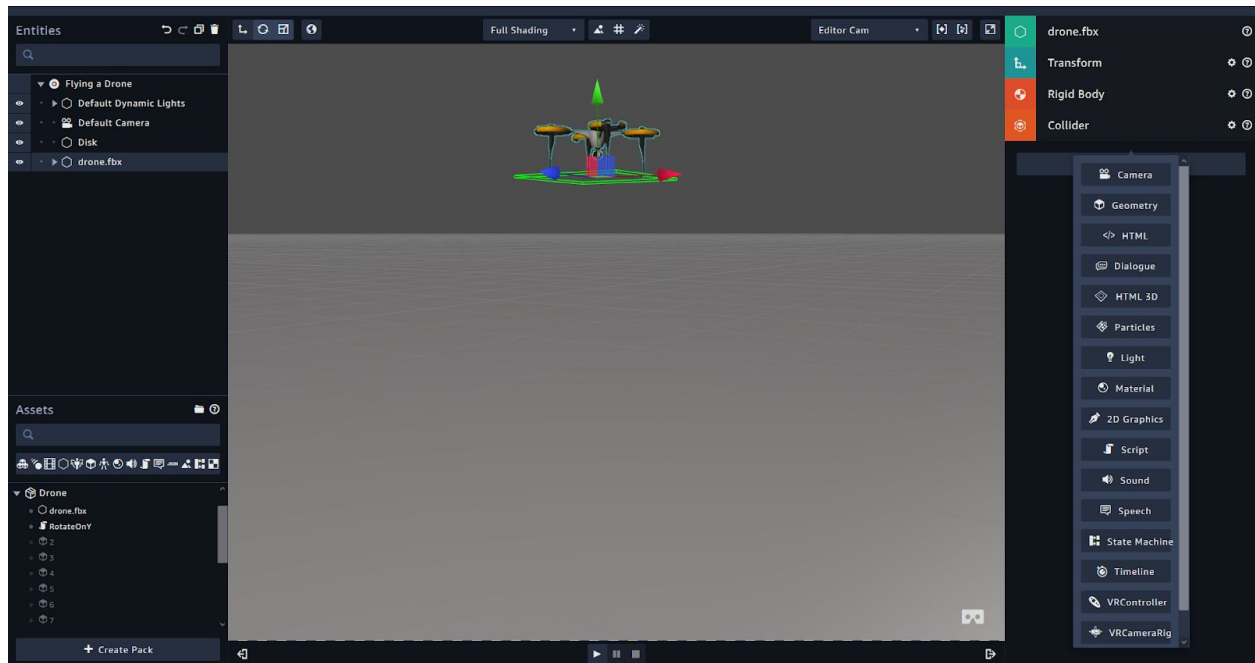

Starting with the Floor (Disk), select Add Component - Collider. Change Shape to Infinite Plane.
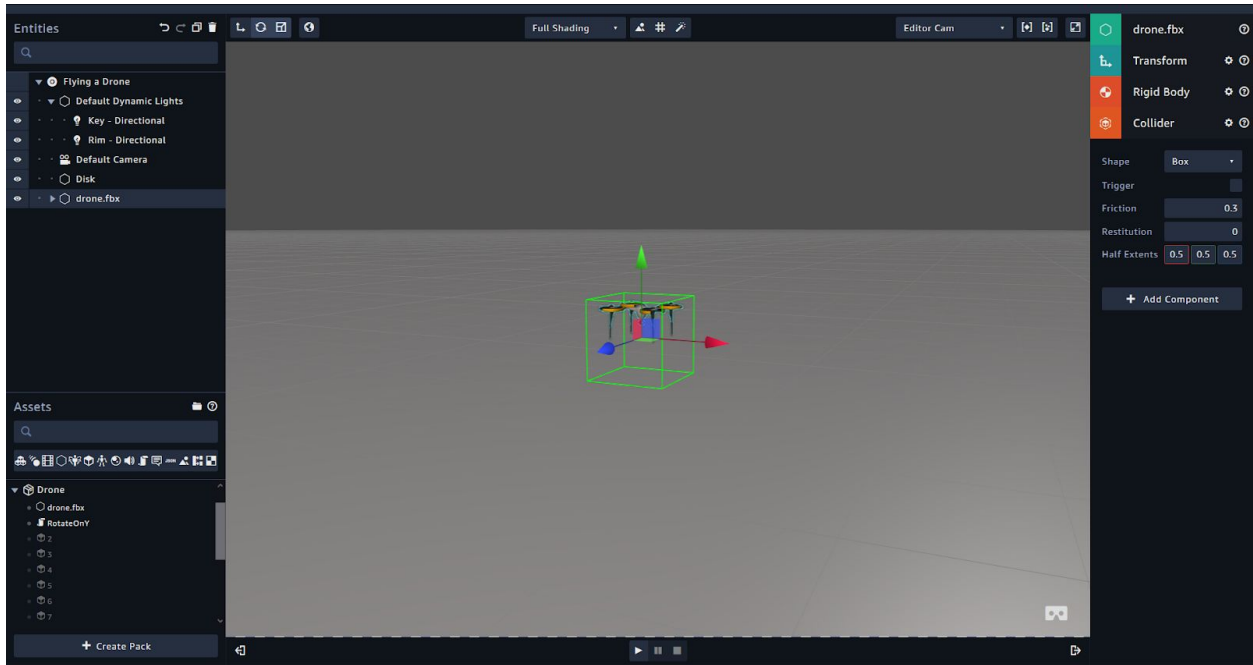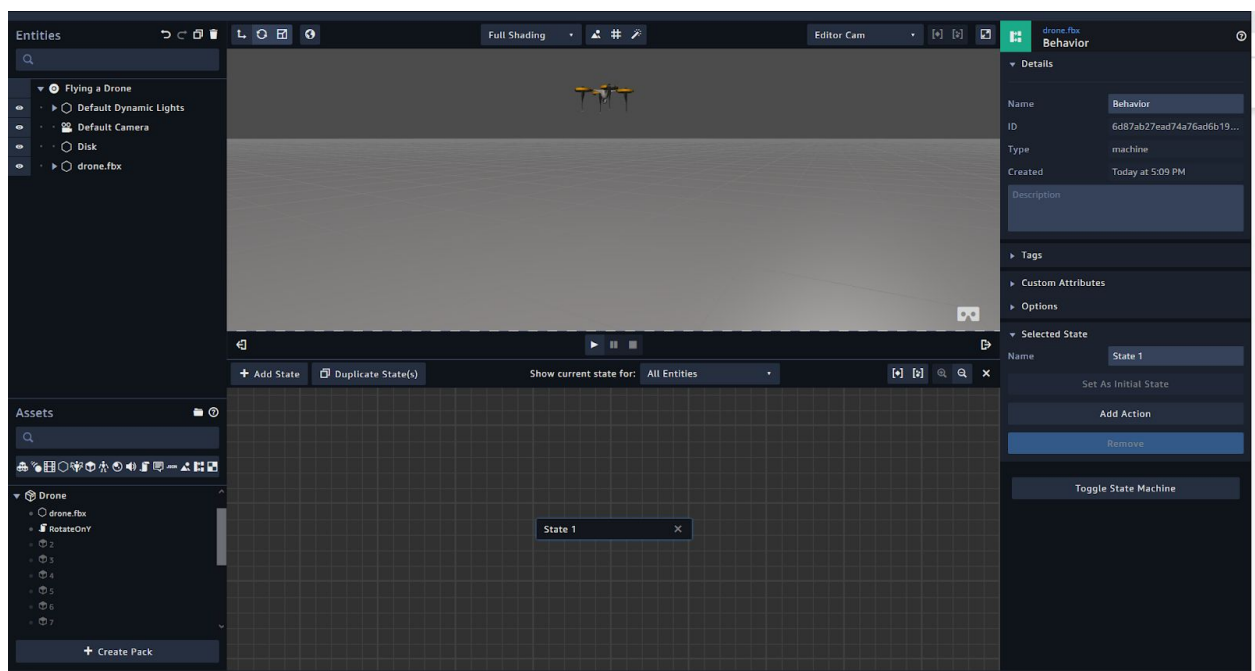
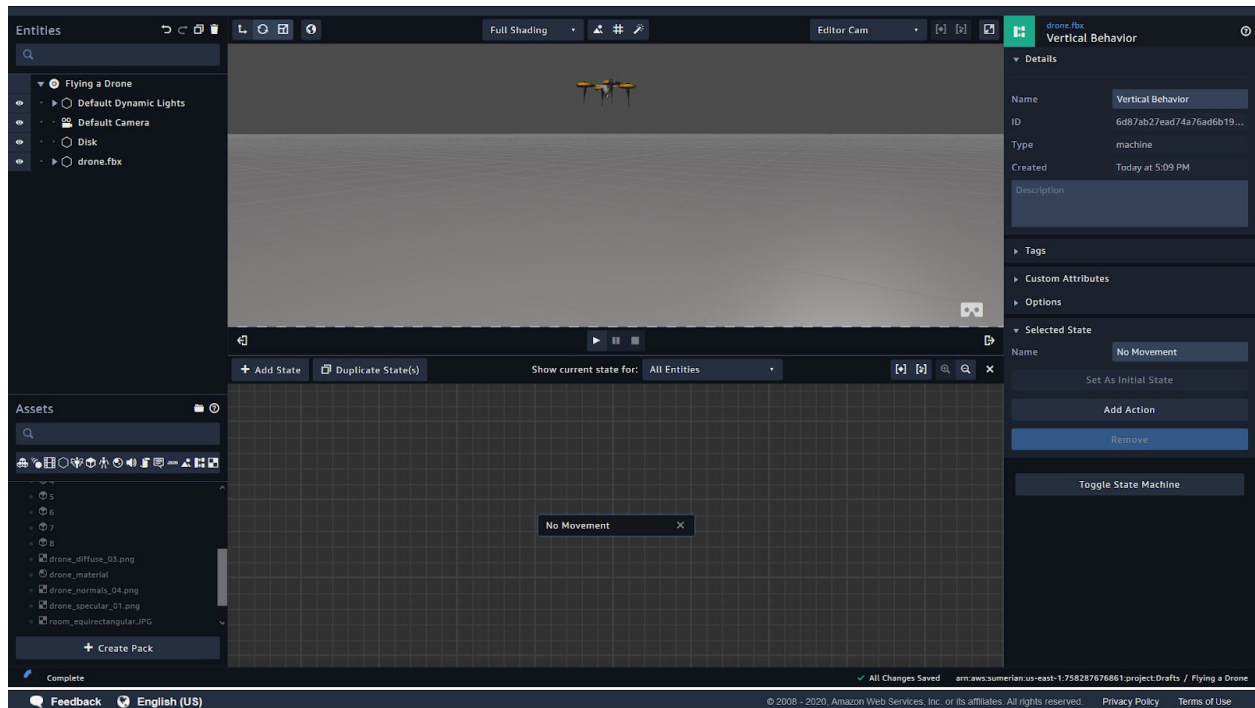Add a Collider to the drone but select Box for Shape.

Change the Y-axis of the Half Extents to 0.01. This will bring the drone closer to the ground.
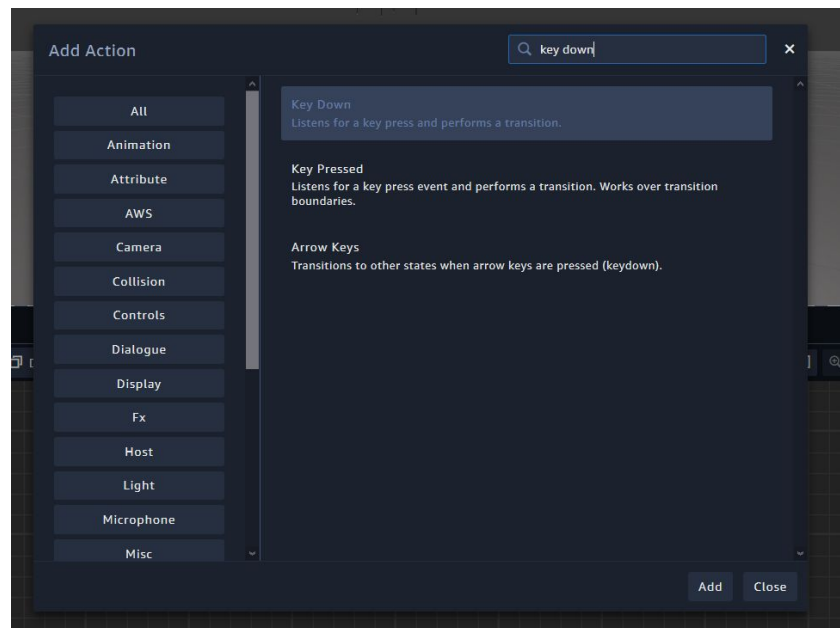
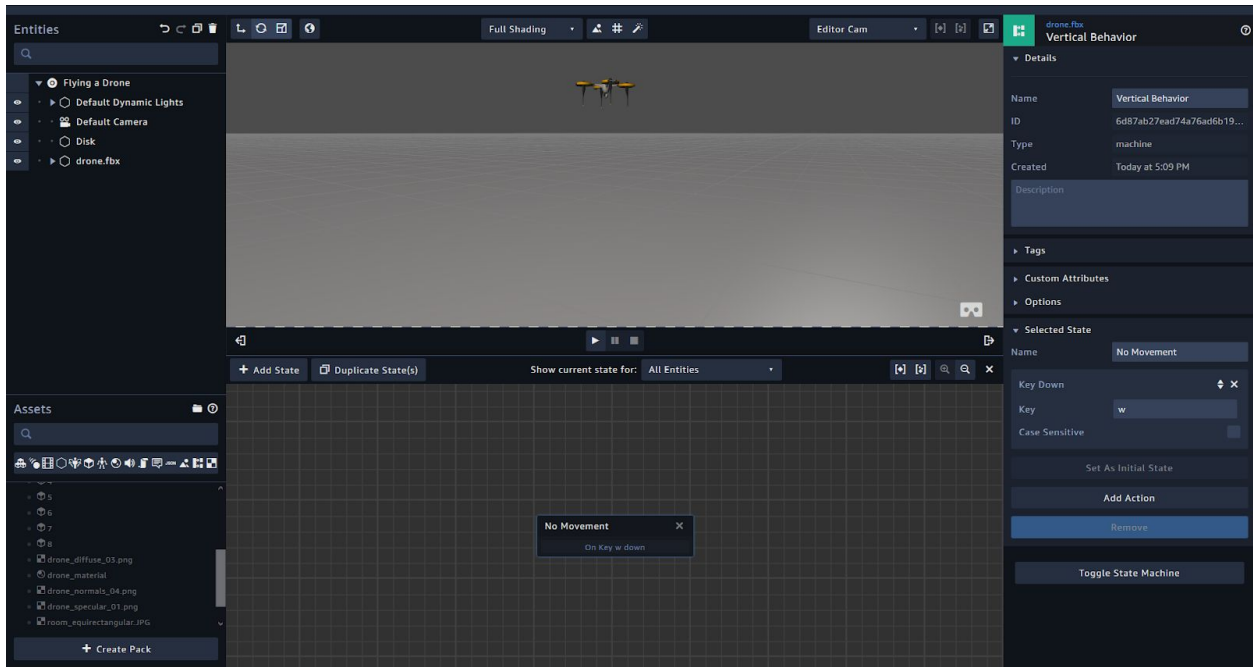To add keyboard controls, add a State Machine from the Components panel.

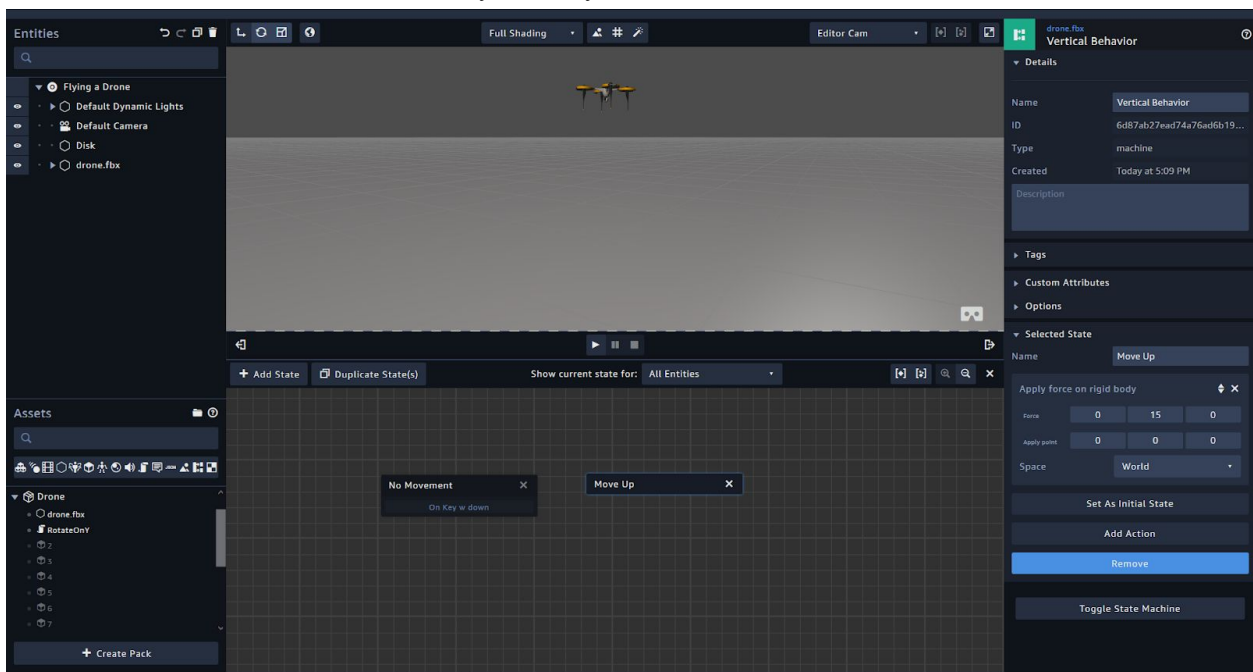Select the plus icon to add a state logic.

Rename to Vertical Behavior and give the Selected State a name of No Movement. To add upward movement select Add Action.
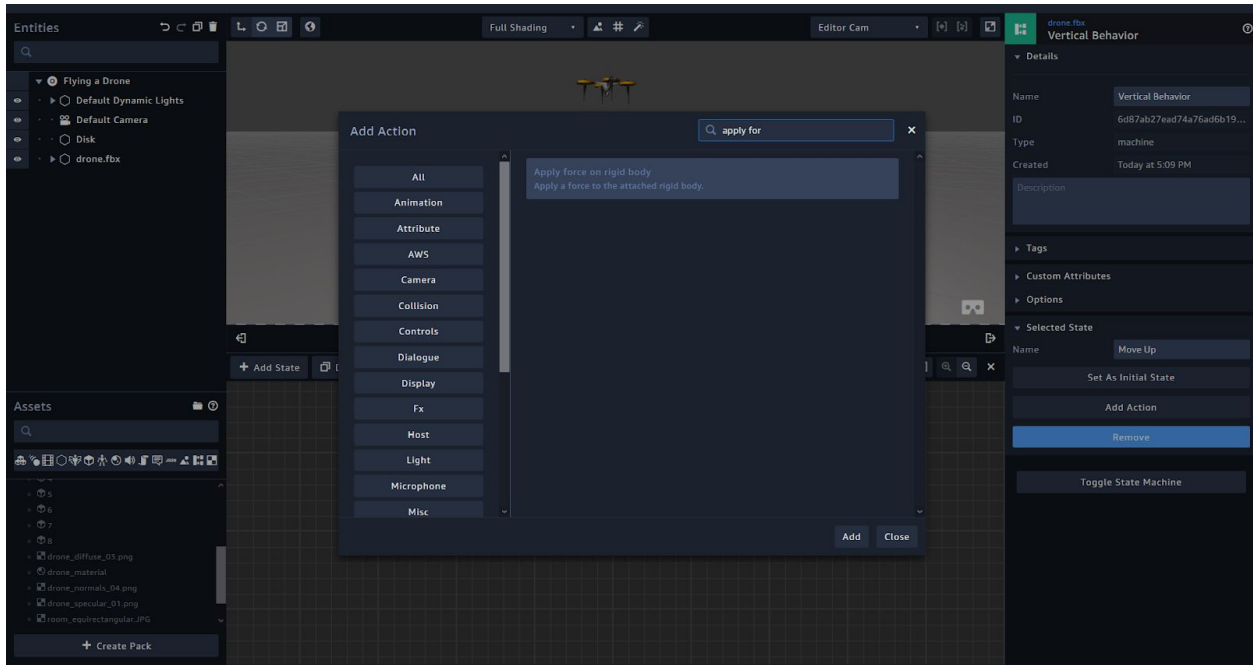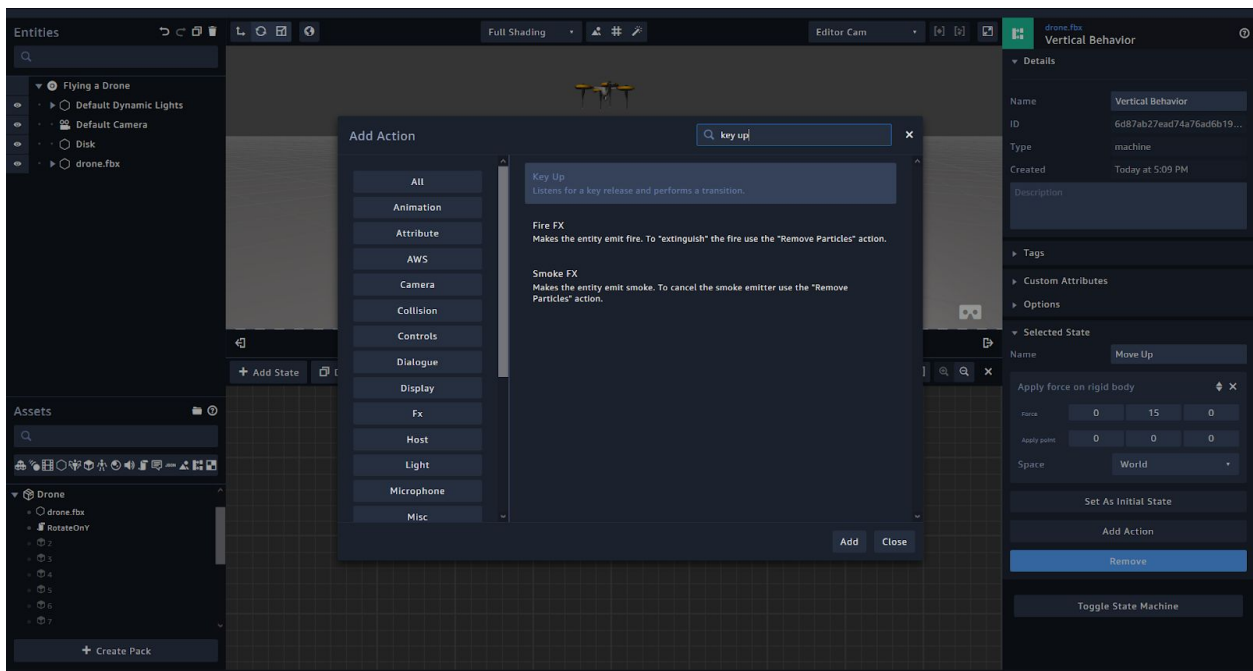

Key Down will be used.

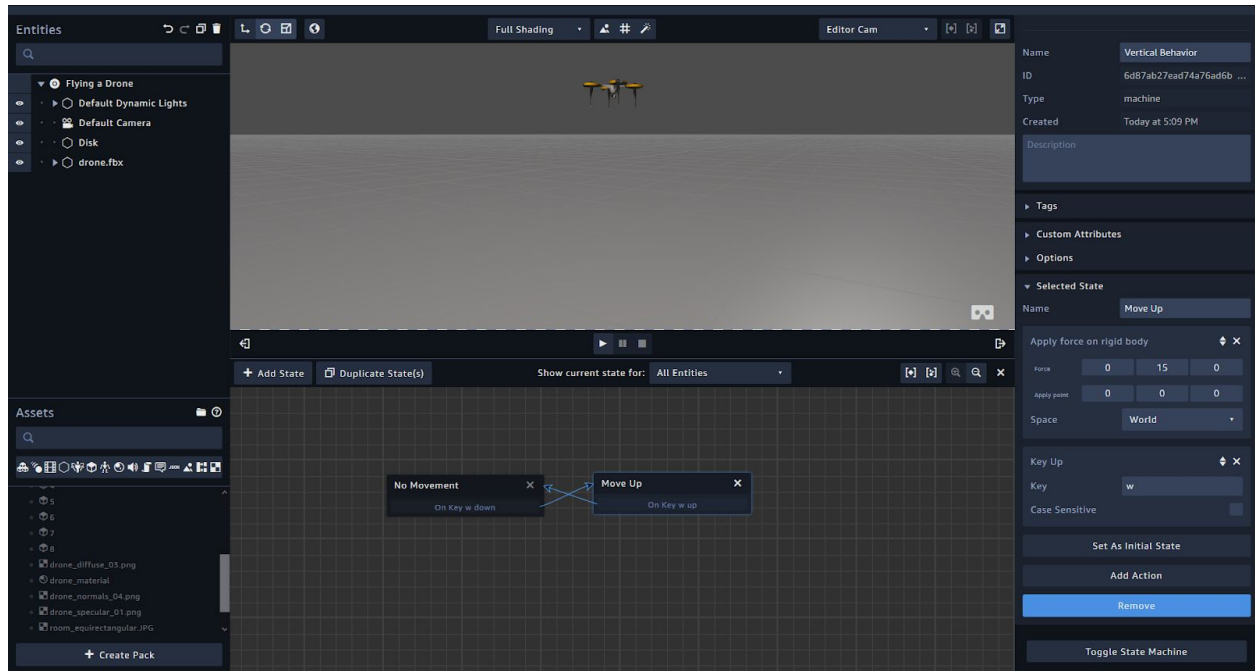The w keyboard key will be movement down.

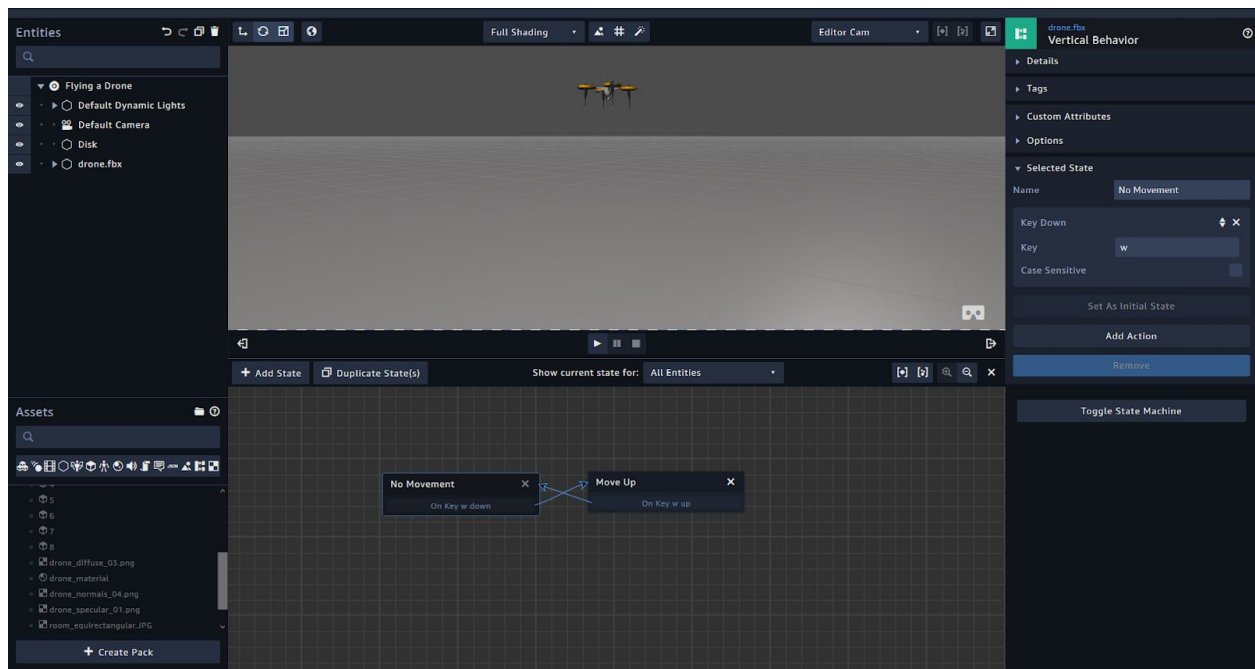Select Add State and rename it to Move Up

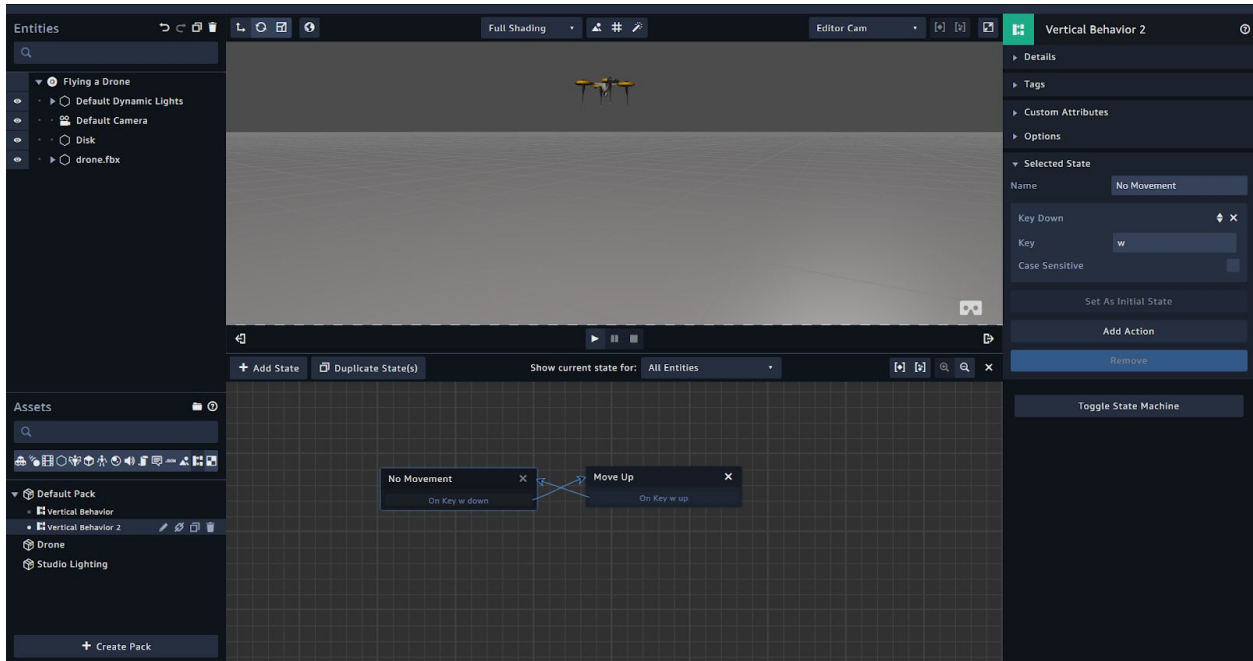Add action and set the Y value to 15.

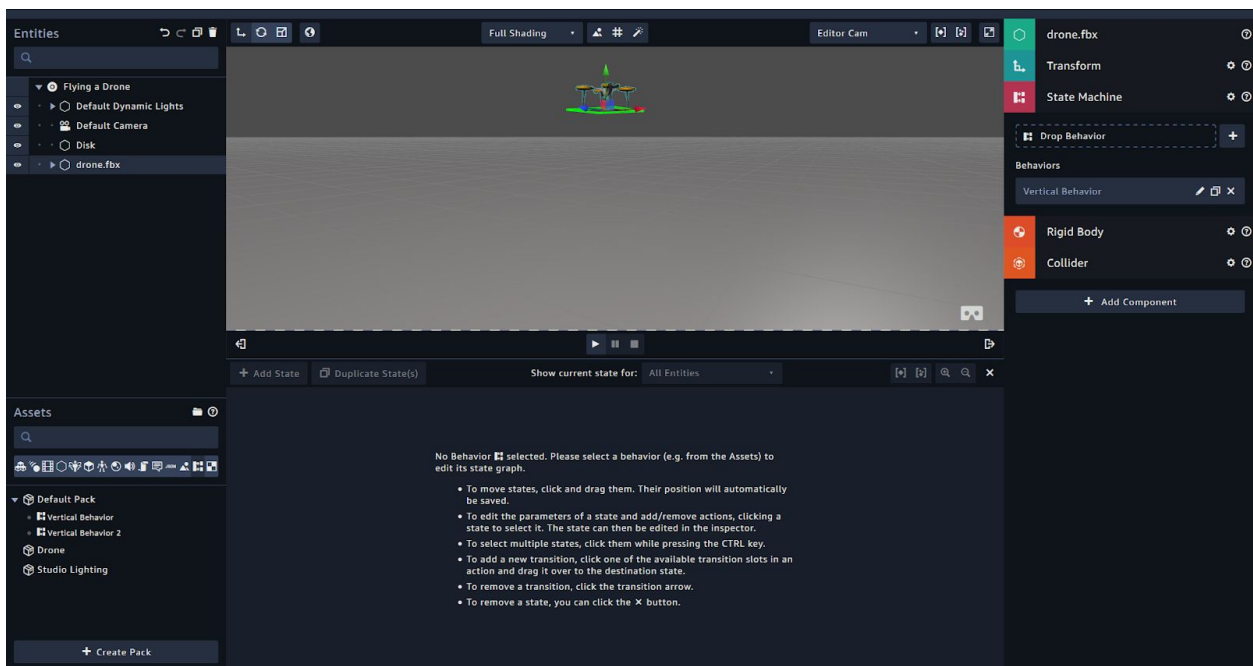Select Add Action again to add key up. Set key up Key to w.

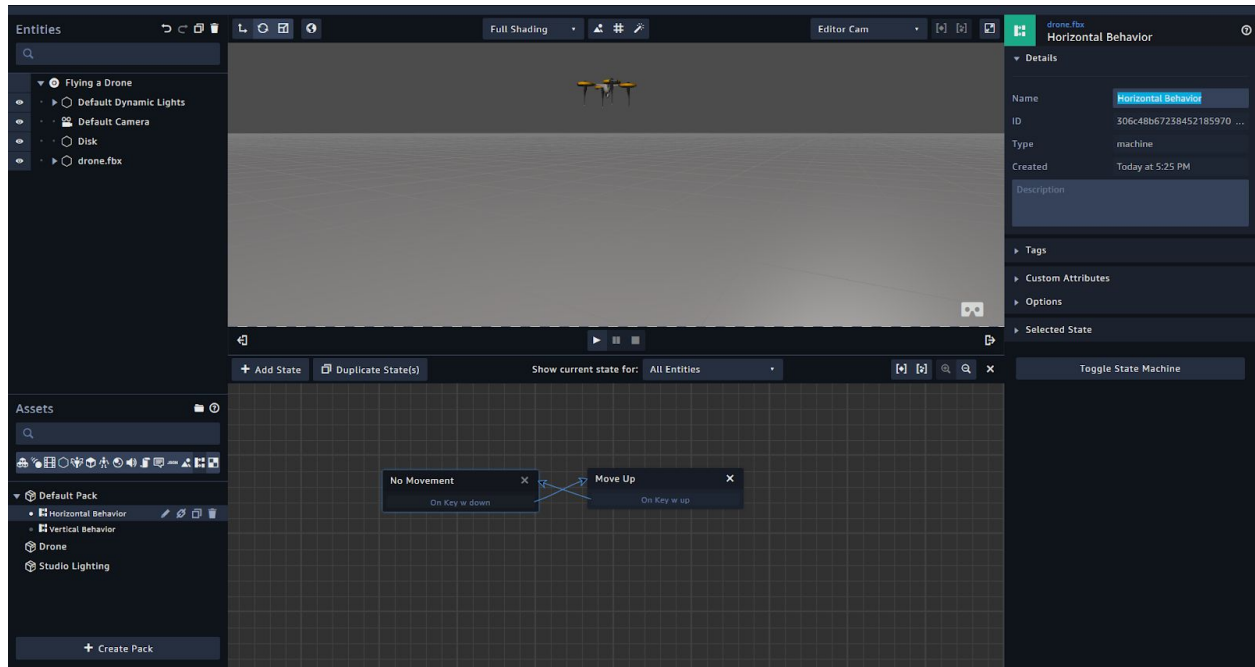Relate each by dragging from each box to the adjacent one.

To add right and left Behaviors, select the Behaviors icon on the left Assets panel.

Select the duplicate icon to make Vertical Behavior 2.

Select the drone.fbx from the Entities panel. Next, drag the Vertical Behavior 2 to the Drop Behavior outline box on the right panel.
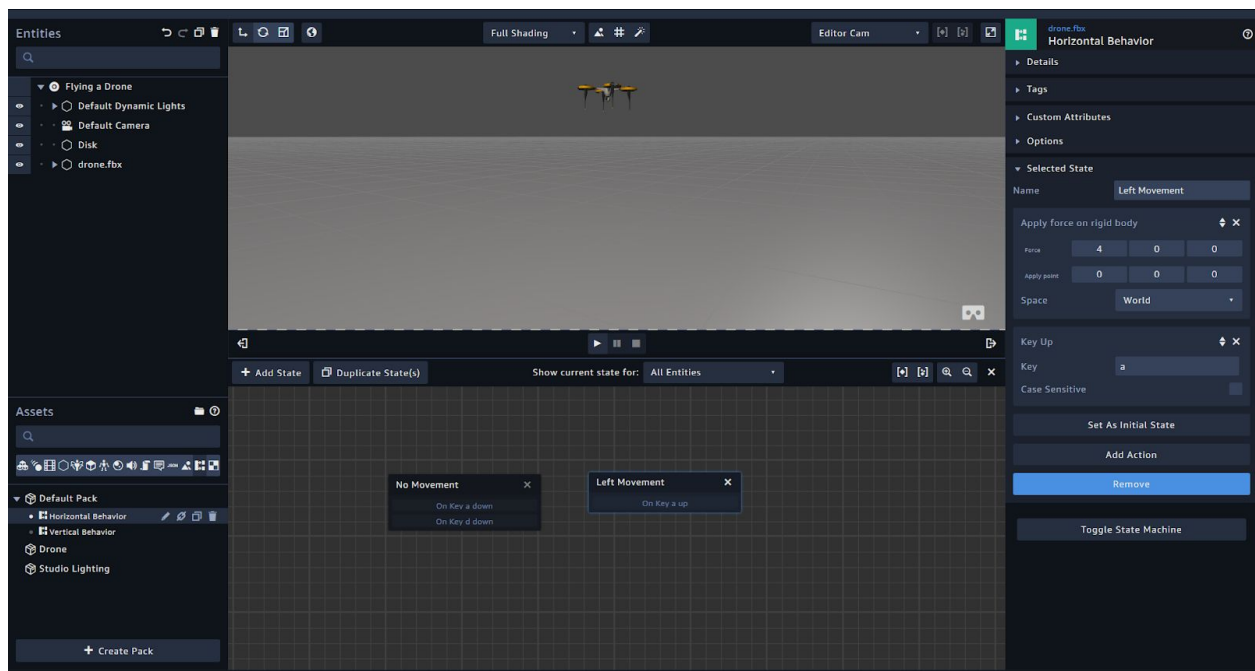
Select the pencil next to the Vertical Behavior 2 entry from the right panel and rename it to Horizontal Behavior.
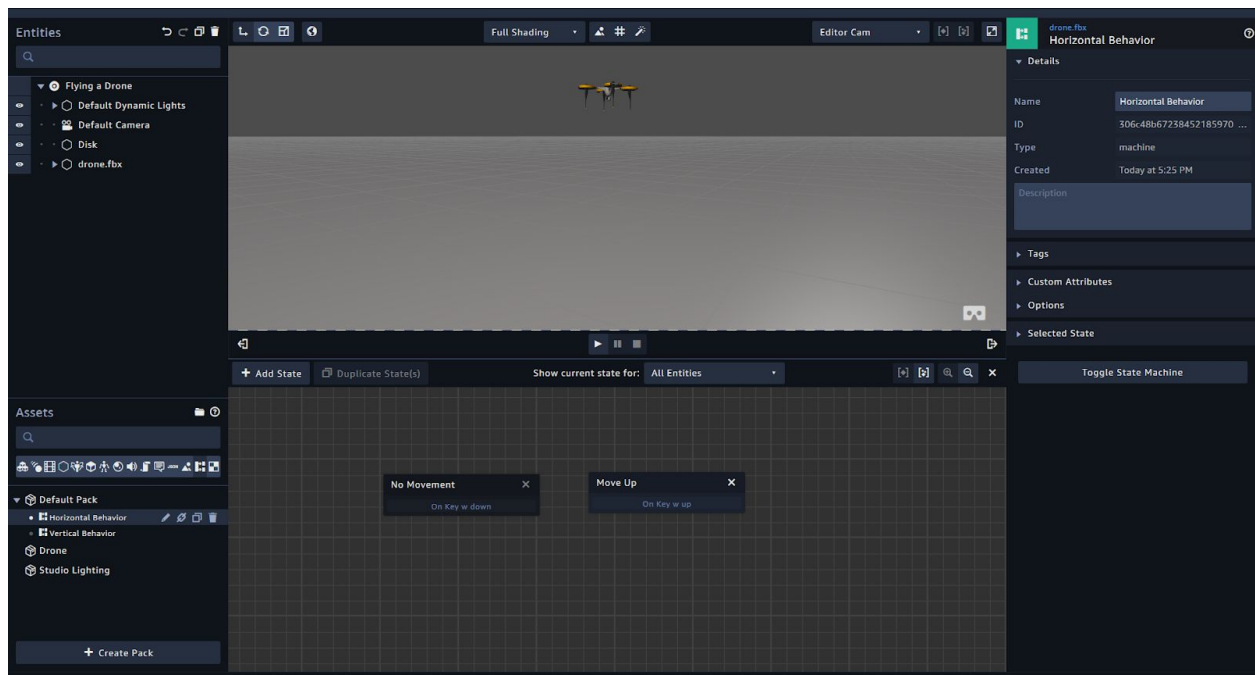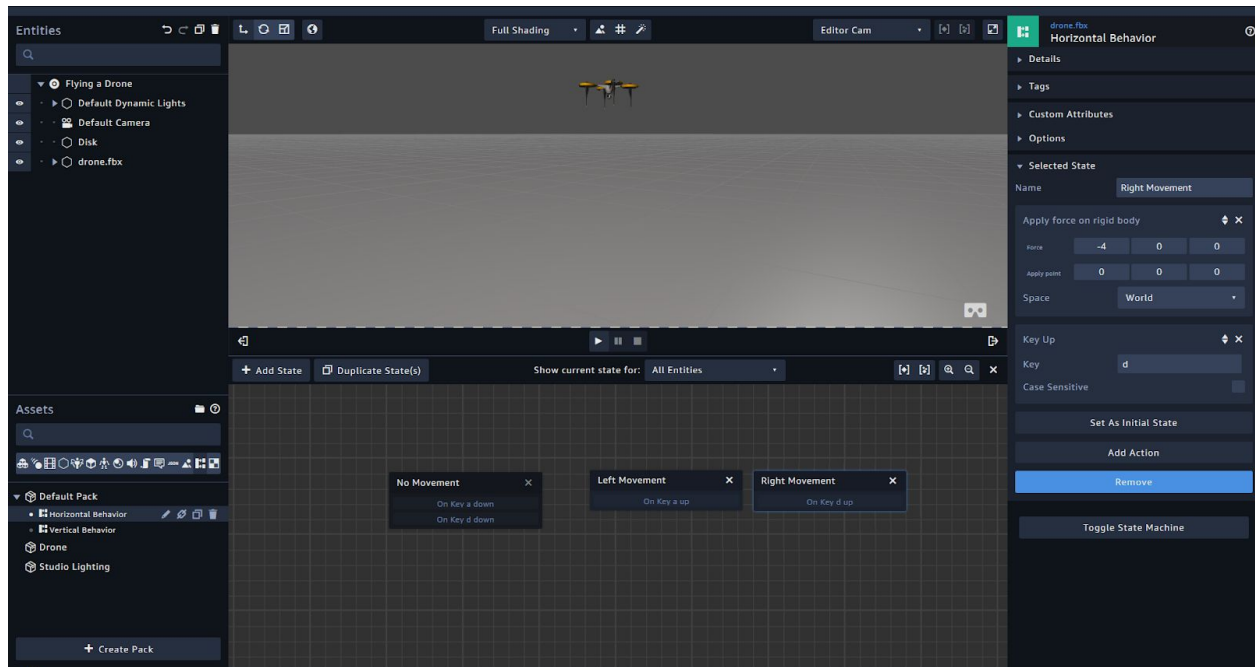

Click on the arrowheads of the States to remove the copied over transitions.
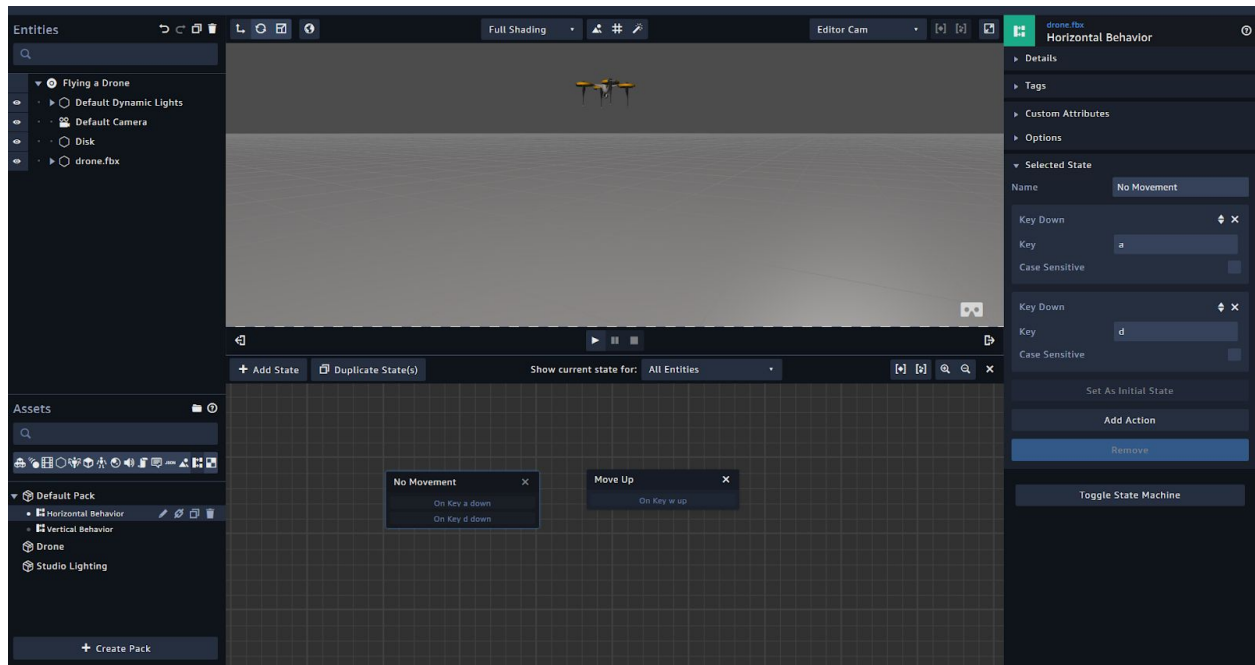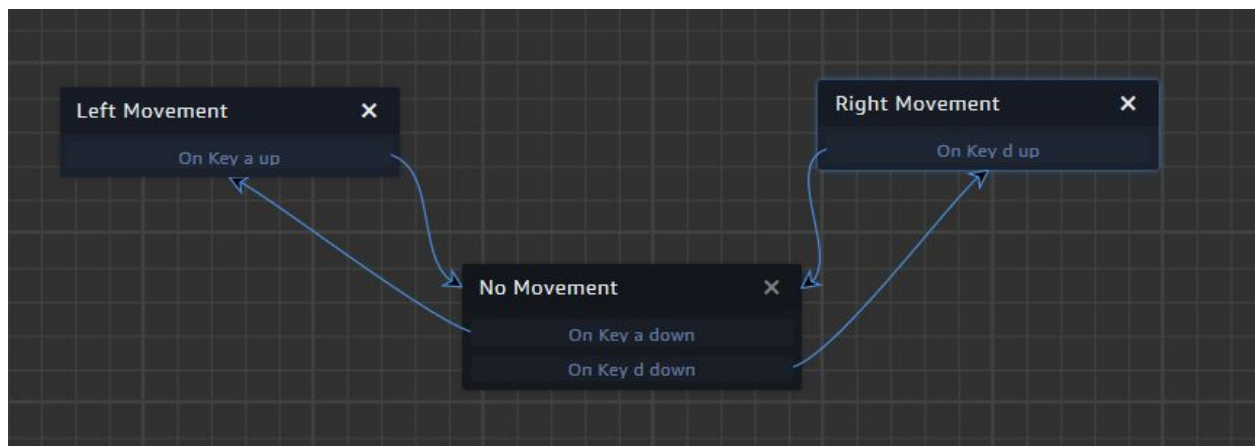
Select No Movement and change the Key to A. Then select Add Action key down and change the current value to d.

Select the Move Up State and rename to Left Movement, Y value to 0, X value to 4, and Key Up Key to a. Then select Duplicate State(s).

Rename the duplicated Left Movement to Right Movement, replace 4 with -4, and change the key to d.

Note the correct translations.