Overview

6. Camera Control
   - Position camera
   - Change point of view to object
   - Change point of view during animation
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7. Create several events which allow the user to interact within the animation

The story continues: We will change the camera view during animation. Also, the user will be able to control the camera view, and move skaterGirl around on the screen.

What we will do:

- Camera Control

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Step Six: Camera Control

• Now let's learn how to change the camera view.

• Before the skater girl jumps, we want to move the camera in order to watch her jump from the right side.

• Click on Add Objects. You can move the camera using these buttons:

  - Use only the middle one, click and drag the camera to the right and then drag it forward and swing it around so that you're looking at your scene from the right side. Try it slowly.

  - Remember to use undo if you make a mistake.

• Once you're satisfied with the camera position, click more controls, then drop dummy at the camera.

  - Expand Dummy objects in the object tree. Rename 'Dummy' as 'sideView'.

  - When your scene looks like this, first play your world to make sure that you can still see the conversation and the jump.

  - Click on Add Objects. You can move the camera using these buttons:

    - Click on Add Objects. You can move the camera using these buttons.
• Click Done to exit the layout mode.

Now that we have multiple views, we must specify
the view at the beginning of the animation.

Drag camera from the object tree into the very
beginning of world.myfirstmethod, right
of originalPosition.

• Set Point of View to Dummy Object

Play your world.

This screenshot shows
setting the camera point
of view to the
originalPosition.

See the next slide for the screenshot
Create an event

To allow the user to interact with the animation by changing the point of view, we will create an event.

1. In the Events pane, click Create new event.

2. Select Set point of View to an Object.

3. Drag a Do Together on top of the Nothing.

4. Drag in the camera and select set point of view.

5. Select skaterGirl, select her head, the entire head.

6. Play your world. Press Spacebar at some point during your animation.

7. See the next slide for an explanation of what went wrong.

Note: If something goes wrong, select a key is typed, do nothing, and click a new event.
Camera set vehicle to

• When you played your world, the camera did not move with skaterGirl when the spacebar was typed.

• We must set the camera vehicle to skaterGirl.

• Drag camera into the Do Together. Select set vehicle to skaterGirl, her entire head.

Another Event

• We want the user to be able to return to the original position.

Play your world now

Another Event

• Drag camera into the Do Together. Select set vehicle to skaterGirl.

• When you played your world, the camera did not type. Move with skaterGirl when the spacebar was typed.

• Create a new event "when a key is typed". Click on any key.

• Drag a Do Together from control statements up to

Nothing. Drag a Do Together from control statements up to

• Key, select letters, O

• Create a new event "when a key is typed". Click on any
Event continued

• Drag camera from the object tree into the Do together of the event. Select camera set vehicle to, the entire world.

• Drag copy to the Do together of the event, set point of view to Original Position and make copy.

Event continued
Play your world

• Click Play.
• Press Space at any time to see the camera view change to skaterGirl.

A different type of event

• Let's try a different type of event in order to allow the user to use the arrow keys to move the skateboard.

Event pane to see the new event

• Scroll down in your event pane.
• Select Let the arrow keys move.

Create new event.

• Select Let the arrow keys move event.

Then press O to switch the camera view to originalPosition.

Press Space to at any time to see the camera view change to skaterGirl.

Click Play.

Play your world.
In this event, click on the camera and in the drop-down menu, select skateboard. This skateboard object will serve as a double in the new view, instead of the original skateboard around in the world.

When we position the objects, we will add a second skateboard. After he talks, the camera will be set to a new view to watch the takeoff.

Click on an object event

First, we will position the camera and objects.

While we are working with camera control and events, let's set up our scene for Part Four tutorial.

While we are working with camera control and events, let's create an event so that when skaterGuy is clicked on, he says "let's go watch the planes go watch the planes takeoff". After he talks, the new view will be set to a new view to watch the takeoff.

Then use the arrow keys on your keyboard to move around the world. Press the spacebar to change to her view.

Play your world. After the skaterGirl goes around the circle, press the spacebar to change to her view.

Skateboard down menu, select skateboard, the entire skateboard.
Positioning the Camera

- Right click on the camera in the object tree and select methods, set point of view to dummy objects, 
- Click on Add Objects to go to the gallery, 
- Drop the dummy objects.

Dropping the Dummy Objects

- Click on the middle camera arrow. Drag the camera to the right, forward, and swing it around until the camera is facing to the right of the original scene.
- Basically, as long as you are still on the airport, with no buildings in your scene and just a bit of green ground showing, your view is good.
Now drop a dummy at the camera. Rename "dummy" to "watchTakeOff".

Go to the Skate Park folder. Drag skaterGuy into the world. Use the buttons to position this skaterGuy.

Face him away from the camera, move him close, then down and resize so that he is only at the bottom of the scene.

If you do not see your skaterGuy2 in your scene, right-click on him in the object tree. (Right-click on him and select methods, move to, camera.)

If you can't find your object, select methods, move to, camera.
What to do if you can't find your object:

Sometimes, when you drag an object into your world, it appears at the origin of the world, which is not in your scene.

Scroll down to that object in the object tree, be careful to click on skaterGuy2, not skaterGuy.

Right click on skaterGuy2 and select methods, move to camera.

Now, drag him into your scene. If that doesn't work, right click on skaterGuy2 and select methods, move to.

Right click on skaterGuy2 in the object tree again and select methods.

If it doesn't move into the scene then, click undo and try to move him left, 5 meters.

Once you have one object in your scene, you can use that as reference to move all of the other objects into your scene.

Go back to the Local Gallery. Click on the folder Roads and Signs.

Drag the “Do Not Enter Sign” into the world twice.

Position the signs like this:

- Drag the “Do Not Enter Sign” into the world twice.

- Go back to the Local Gallery. Click on the folder.

Sometimes, when you drag an object into your world, it appears at the origin of the world, which is not in your scene.
Set skaterGuy2 to false, initially

- Finally, click on skaterGuy2 in the object tree.
- In the properties tab, set isShowing to false.
- This is because the original scene is with skaterGuy, so skaterGuy2 shouldn't be showing yet.

Create airplaneTakeOffMethod

- Click Done to exit the layout mode.
- Click on the world in the object tree. Create a new method. Name it airplaneTakeOff.

Drag in this code:

```javascript
var world = world.airplaneTakeOff()
```

Create a new method. Name it airplaneTakeOff.

- Drag in this code:

```
var world = world.airplaneTakeOff()
```
Play your world

In Part Four, we will learn how to use billboards and events.

In Part Three, we learned about camera control.

Now, play your world and test out your click.

Create a new event:

• In the event’s pane, select skaterGuy.

• Click on “When the mouse is clicked on something”.

• Click on “something”.

• Select “When the mouse is clicked on something”.

• In the event’s pane, create a new event:

• In the event’s pane, select skaterGuy.

• Click on “When the mouse is clicked on skaterGuy”.

• Select “When the mouse is clicked on skaterGuy”.

• When the mouse is clicked on skaterGuy, select skaterGuy, the entireSkaterGuy from the drop down menu.

• Click on Nothing, select airplaneTakeOff from the drop down menu.

Simulate a plane taking off and complete the airplaneTakeOff method to simulate a plane taking off.