

Lesson 11: Use Keyboard Controls

Try It: Practice Activities

Instructions:

Open the "WhiteRabbitProject" project you saved in the previous lesson. You will use this project for all of the practice activities listed below. Download this lesson's project file if you did not complete the previous lesson's Try It activities.

1. Access event listeners.
 1. View the event listeners available in the scene.
2. Add a key press listener.
 1. Add a key press listener to the WhiteRabbitProject.
 2. Save the project.
3. Program an event listener.
 1. Program the KeyPressListener procedure so that the baby bunny hops one time when the "H" key is pressed on the keyboard. TIP: Use the bipedHop procedure.
 2. Test the key press listener.
 3. Save the project.
4. Program additional motions.
 1. Add two or three more hedges in various places to the WhiteRabbitProject scene to be used as obstacles for the bunny.
 2. Program an additional motion so that the bunny turns a quarter turn to the right when the "R" keyboard key is pressed.
 3. Program another motion so that the bunny turns a quarter turn to the left when the "L" keyboard key is pressed.
 4. Test the animation and use the keyboard keys to move the bunny around the scene, avoiding the wall, white rabbit, and hedges.
 5. Save the project.

Optional Activities

Complete the following optional practice activities below to continue practicing the concepts you learned in this lesson.

1. Create a new project using the sea floor template. Set up an initial scene for a treasure hunt. Add a submarine, dolphins, and several fish. Add coral, seaweed, and sea plants. Add a treasure chest and put a hidden object inside of it.
 1. Program the submarine to move forward, backward, up, down, left and right using keyboard keys and arrow keys.
 2. Using an IF statement, program the treasure chest lid to open and reveal the hidden object if the submarine collides with the treasure chest.
 3. Save the project.
2. Create a new project using the snow template. Create a hiking scene with a person object riding a snow yak through snowy mountains to a base camp. The base camp needs a few items that the snow yak will bring. Put other objects on the snow yak that it should carry to the people at the base camp. The base camp has people, tents, prayer flags, and other camping objects.

1. Program the snow yak to move forward, backward, left and right using the arrow keys on your keyboard.
2. Program the snow yak to say something when the A key is pressed (browse the internet to research what noises snow yaks make).
3. If the snow yak collides with the tent at base camp, program the people at the base camp to cheer for the snow yak's arrival.