

## WiredUp Activity 2: Responding to the user

### Vocabulary

**User:** The person who is playing the game, running the program, etc.

**Control:** Blocks that decide **when** something should happen.

**Event:** Something that the user does (click on a sprite, press a button, etc.)

**Implement:** You, the programmer, making the scripts for your sprites.

**Interactive:** A program that changes in response to the user (unlike a video or song, which plays the same way every time).

### Overview

In this project, you will begin to respond to **user events**. To build a fun game, you want to have the user control the game. The user usually does that either by pressing buttons on the keyboard or by clicking the mouse in the right spot. In this project, you will learn how to make the program do something as a result of pressing a button or clicking the mouse on a sprite.

### Control

Remember that scripts have two parts – when to do something and what to do. Blocks that decide

when to do something are called **control**. They are all grouped together in the control category. They are all orange. Every script must start with a control block to tell when to do it. Later, you will learn other control blocks that you can place in the middle or end of a script.

In this project, our control blocks are “When sprite clicked” and “When button pressed.” You will start each script with one of those two blocks, place that with the right sprite, and add the blocks to tell sprite what to do when the event occurs.

### Explore:

Open the project Lesson2Mission. Click on the green flag. Then click on the mission sprite located in Santa Barbara. What happens?

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Now click on the “Control” category and look at the blocks available. What block do you think was used to make that happen as a result of you clicking on the mission?

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Now click on the “Looks” category and look at the blocks available. What block do you think was used to make the bubble?

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Now look at the sprite list at the bottom-right corner of Scratch. The script went with what sprite? (Note: The script is actually hidden from you – but what sprite does it go with?)

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### **Assignment:**

There are two goals of this project. The first goal is to make each of the missions and the capital building on the screen “say” or “think” their city when they are clicked.

The second goal is to make a script that allows the user to move the monk by using the up, down, left, and right arrows on the keyboard.

### **Plan:**

You have already done the planning for the first part of the project during the exploration. Now you need to think about how to make the user be able to control the monk. Just as in lesson 1, you may need more than one script for the monk sprite. Let’s just think about how to make the monk move to the left as the result of the user pressing the left arrow.

Click on the “Control” category and look at the blocks available. What block(s) do you think you need to use to make something happen when the user **presses the left arrow button**?

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Now click on the “Motion” category and look at the blocks available. What block(s) do you think you need to use to make the monk **move to the left** when the user presses the left arrow button? (hint: It may take more than one block)

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### **Create:**

Now it is time to create your project. You should add scripts to all of the sprites except for the one that has already been completed.

***Pro Tip: You can make copies of scripts. Right-click on the script, and you will have another to place. That way, if you want to make two scripts that are almost identical, you do not have to start over for the second script.***

**Improve:**

After you have finished, think about what you could do to make your project more interesting. Notice that in “Looks”, we have included blocks that were not required. Could you use those to make your project more interesting?

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**Reflect:**

What were the two steps to moving left?

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Is there anything you found surprising when you were completing this project?

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Did anything work differently from how you thought it should or would?

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What was the hardest thing to figure out about the project?

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