



Broadcasting Messages:

Getting Sprites to Talk to Each Other

In this project, we will be creating a “paper doll” in Scratch, where we will have three sprites act as buttons to change the costumes and backgrounds of the other sprites.

1. First, we will be drawing a character and creating two costumes for it, as well as giving it two backgrounds to stand on.
2. First, create 2 backgrounds for your stage. You can draw them or import images from Scratch’s library.
3. Next, draw 3 sprites and place them on the stage. Each of these three sprites will be a part of your character’s body. For example, my character is made of three sprites - the head, the shirt, and the pants.
4. Give each of these parts two costumes, so that switching between them makes it look as though the character is changing clothes.
5. Now, create three additional sprites to be used for buttons.
6. Let’s start with the background button. We want this button, when clicked, to change to the next background costume. In order to do this, we have to get the button sprite to communicate with the stage. We will be using the “broadcast” block to do this.



The broadcast block does exactly what it says it does - it shouts out a message that can be heard by any other script on any other sprite.



7. Now that we've set up the background button to broadcast a message when clicked on, we need to tell the stage to listen for that message and respond to it. We'll do that by using the yellow "When I receive..." block.



8. repeat steps 6 and 7 for each of the other sprites that have multiple costumes, but change the broadcast message to match each button. For instance, the shirt button should broadcast the "shirt" message. Afterwards, see if you can add a third costume for all of the parts.

