The Code Squad

Part 1: Play It! (Levels 1-4)

Objective: The Code Squad’s computer gear has been stolen and hidden in the park! Help them get it back by writing programs to direct each Code Squad member to their stolen item. Make sure to keep each character on the grey stone path, and try to use the fewest blocks possible. Click the green flag to get started!

Blocks: The blocks you will need for Levels 1-4 are shown below. They can be found on the “More Blocks” panel. Make sure to end each program with a “Done!” block.

You can use less blocks by nesting move blocks inside “repeat” blocks. Make sure to change the number of times the code inside the repeat block will be repeated. The “repeat” block can be found on the “Control” blocks panel.

Testing Your Program: When your program for a level is ready to test, click on the character to start the program running. To reset the level, click on the button. Click on the button to go back to the level selection menu.

Levels: There are 5 levels. To change levels, go to the main menu and select a new level. Make sure to pick that corresponding sprite in the sprite panel before you start coding. To complete Level 5, you’ll need to add more code to the game itself. See Part 2 for instructions!
Part 2: Program It! (Level 5 and Beyond)

Objective: The objective of this part of the activity is to experiment with more Scratch blocks to extend, enhance and customize the game. You can try the activities below in any order, but they get harder from Activity 1 to Activity 4. Some of the blocks that might be useful to you are listed below.

The horizontal position of a sprite on the stage corresponds to the \textit{x position} value and the vertical position corresponds to the \textit{y position} value. Increasing \textit{x} moves the sprite to the right while decreasing \textit{x} moves the sprite to the left. The same holds for \textit{y} except that changing \textit{y} will move the sprite up and down.

Activity 1 - Complete Level 5: To complete Level 5, you need to write code for the “Jump Right” block. The jump right block needs to move your character two blocks to the right instead of one. You can animate the jump however you like. Have a look at how the “Move Right” block is coded to get started. It’s code is listed all the way at the bottom of the code panel.

Activity 2 – Victory Dance: Add a “victory dance” animation for a character when they win their level. You will need to add the code to the definition of the “Done” block. To animate the dance, you can use move, repeat and wait blocks.

Activity 3 – Animated Items: The item each character needs to retrieve doesn’t move at all currently. Try adding animations to the items to make them more interesting. For example, make them bounce up and down, move back and forth, shrink and grow, or whatever else you think would look cool. Blocks that might be helpful are move, turn, and change size.

Activity 4 – Enemies: Try adding an additional sprite to a level that will be a moving enemy. If the character touches the sprite, they lose the level and need to restart. To make the level winnable with an enemy, the enemy sprite will need to move in a repeating pattern. The player will need to use wait blocks to time how their character moves through the stage to avoid the enemy sprite.

Beyond: You can write code to customize or extend any part of the game. You can add any features you think would make the game more fun, challenging, or educational.