

## Team Project and Giving Credit

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### Textbook

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Design a game called "Avoid the Alphabet." The premise of the game is you will have different letters of the alphabet repeatedly moving across the screen at different speeds. You will code a sprite to start at the bottom of the screen and make it to the top where they will touch a button. Each time the sprite touches the button at the top, it will score a point! Keep track of the score using a variable.

### Working Together

You will each build your version of the game on your device, but you're encouraged to work together to solve coding problems and improve your game.

- Share ideas about how to make letters move or how to track the score.
- Compare how different code blocks work and test different solutions.
- If you finish early, you can test a classmate's game and give feedback about bugs or gameplay.

### Group Coding Discussion

Use clear, helpful communication as you work together on your project:

- Describe your code choices: "I used a forever loop to keep the letter moving."
- Ask technical questions: "Which block did you use to change the sprite's direction?"
- Compare logic: "What happens if we increase the speed by 2 instead of 1?"
- Offer suggestions: "You could try adding a wait block to slow the letter down."

## Debugging and Improving

When coding, problems may happen – that's normal. Here's how to keep making progress:

- If something doesn't work, review your steps and test small changes.
- Use what you've learned in past lessons to troubleshoot.
- When needed, check with your group to compare solutions.
- Test your program often and adjust based on what you see.

The specific requirements for this project are in the challenge section. If you need help remembering how to code something, go to previous lessons to help you.

## Blocks Pro Challenges (1)

### 1. Avoid the Alphabet

#### Avoid the Alphabet

Design a game called "Avoid the Alphabet." The basis of the game is you will program at least 4 different letters of the alphabet to move horizontally across the screen at different speeds on a loop.

Then, you will code a sprite to start at the bottom of the screen and move past the letters to reach a button at the top. This sprite should respond to all arrow controls.

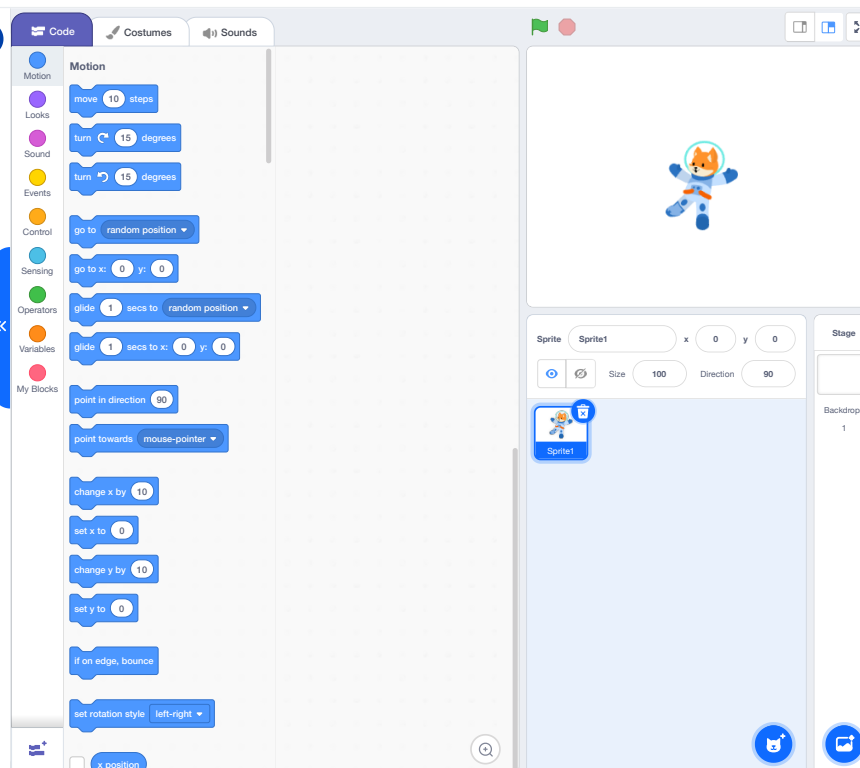
Each time the sprite touches the button at the top, it will score a point! Keep track of the score using a variable. After it reaches the button, program your sprite to return to its starting position at the bottom of the screen.

Note: If you wish to change the size of a sprite, change the size number in the bottom right of the screen above the sprites.

Requirements 0/5

13 Motion

4 Event



The image shows the Scratch code editor interface. On the left, the 'Code' tab is selected, displaying a script for a sprite named 'Sprite1'. The script consists of the following blocks: 'go to random position', 'glide 1 sec to random position', 'point in direction 90', 'point towards mouse-pointer', 'change x by 10', 'set x to 0', 'change y by 10', 'set y to 0', 'if on edge bounce', and 'set rotation style left-right'. The 'Sprite1' sprite is visible on the stage, positioned at the bottom center. The stage background is a light blue gradient. The 'Requirements' section on the left indicates 0/5 requirements are completed, with '13 Motion' and '4 Event' blocks listed.