

serious science mixed with serious fun



**EXTREME STEAM SCIENCE KIDS  
ROBOTICS PROGRAM  
FOR CODE & GO**

**ACTIVITY – 3**

***This class will cover the following topics***

Review the different colored arrows and buttons and what they each do  
Initial programming  
Understanding sequential order

***Materials Needed***

Program cards  
Colby robot

During this class the children will begin to put together a program that includes several commands. Show the class how to press the arrows in a sequential order to make their mouse robot move. EXAMPLE: Press the BLUE (forward) arrow 3 times, then press the ORANGE (left) arrow once, then press the BLUE (forward) arrow 2 times, then press the Purple (right) arrow once, then press the Blue (forward) arrow 2 times, then press the GREEN button to activate the mouse robot to follow the program that was just selected. Have the class try to do the same program while you are pressing each arrow and button. Each child should take a turn. Teacher should walk around the room and assist the children who are having difficulty.

Use the little program cards to let the children practice programming Colby the mouse robot. These program cards have two sides. One side displays the mouse robot alongside the arrow. This is done to show the orientation of the mouse robot to the direction of the arrow. The other side displays only the directional arrow and the red flash which signifies one of three random actions the robot will do when the red button is pressed. The teacher should show the class how these cards are used by demonstrating how to put them in sequential order. Then press the appropriate arrows and buttons on the mouse robot that appear on the cards in the same order

that the cards were placed in. Once the arrows and buttons are pressed children must press the green button to activate the mouse robot to follow the program. This exercise should be repeated several times so the children get practice in pressing the arrows and buttons, but more importantly, they are experiencing how their mouse robot reacts when programmed.

These practice sessions are important because the children are getting programming skills that are needed when they start programming their mouse robot to go through a maze. At this point the children will be critically thinking and working towards finding solutions for problems that confront them such as: how to program the mouse robot to go through a variety of different mazes or different obstacles placed on the floor.