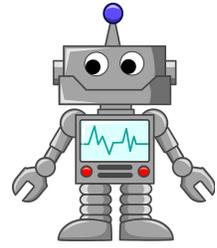


Robot Mazes!

There are two key skills that you will need to have for this assignment. (Actually there are three, if I include your amazing imaginations!) You will need to be able to **accurately measure**, using your math skills. And, you will need to be able to put your **coding abilities** to the test, to get Dash to navigate your mazes!



Here are the guidelines:

Each group of 3 or 4 students will need to design, map out and measure a maze that must measure a **total distance of 5 meters**, and it must be **at least 30 cm wide** (so that Dash can safely move around your maze.), and must feature at least 5 turns, including at least 1 right turn, and 1 left turn.

Step 1: With your group, use graph paper to map out ideas for your Robot Maze.

Step 2: Using a pencil, map out a full size version of your map on a large piece of paper.

Step 3: Once you have met all the criteria (*fancy word for things you need to accomplish*), then your teacher (*ME!!*) will give you the green light to start to map out your maze on the floor, and to tape out your perimeter using green painter's tape.

Step 4: Now comes the computational thinking part (another fancy and confusing adult word), where you need to code Dash, so that she can navigate your maze, and do some cool things along the way.

Step 5: Using Blockly (An app on the iPad), you will program dash to stay within the perimeter of your maze, without going over an of the lines, and navigating each of your turns. Every time Dash successfully turns, she should execute at least three additional functions (*dance, flashing lights, cheer, honk, spin, etc...*) to celebrate her successes.

Step 6: (*Final step*) Once you have completed your maze, coded Dash to perform all her movements and functions, and tested it successfully at least three times, you will then earn the privilege to show off all your hard work to your classmates, and maybe even some other important spectators.

