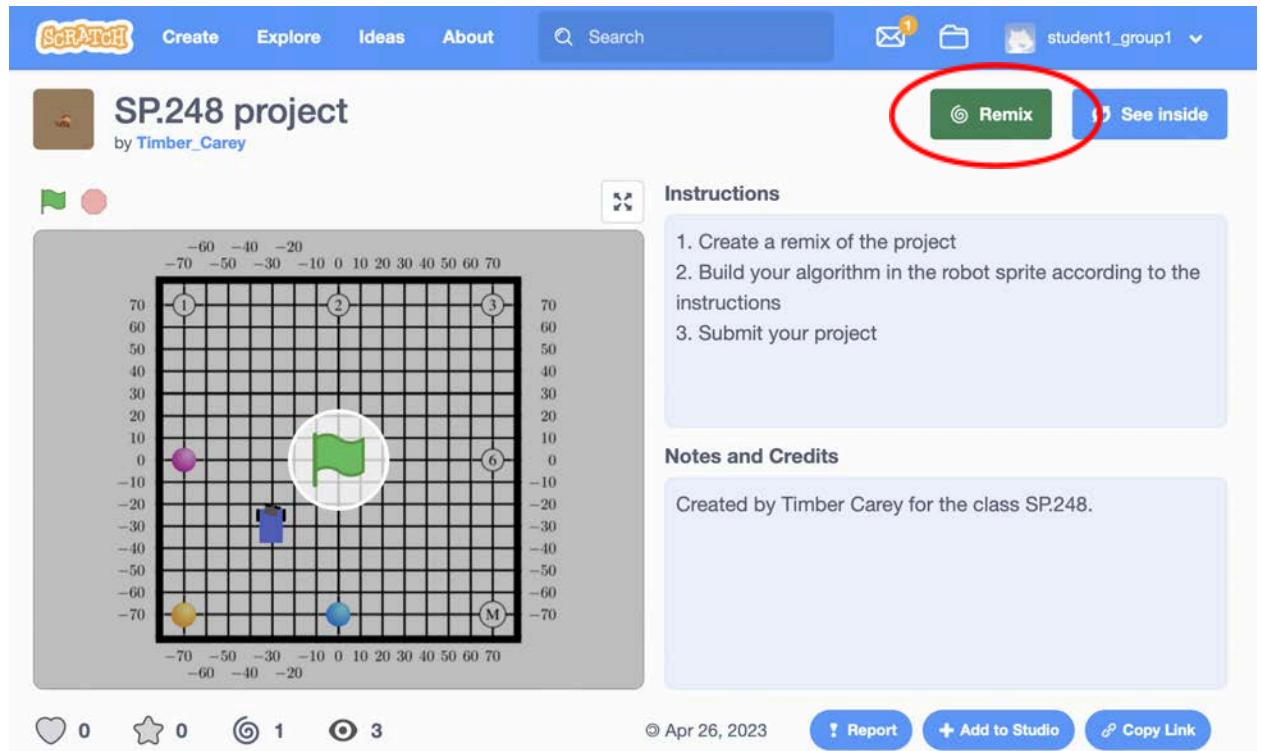
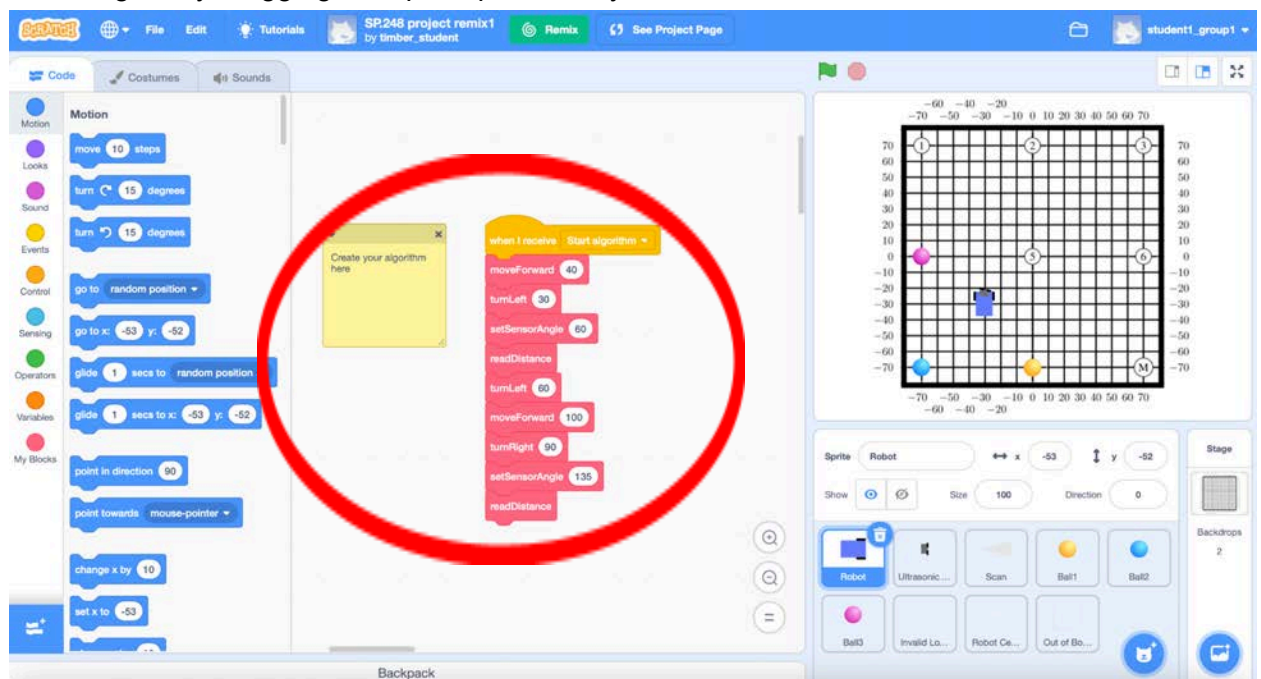


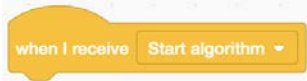
For students

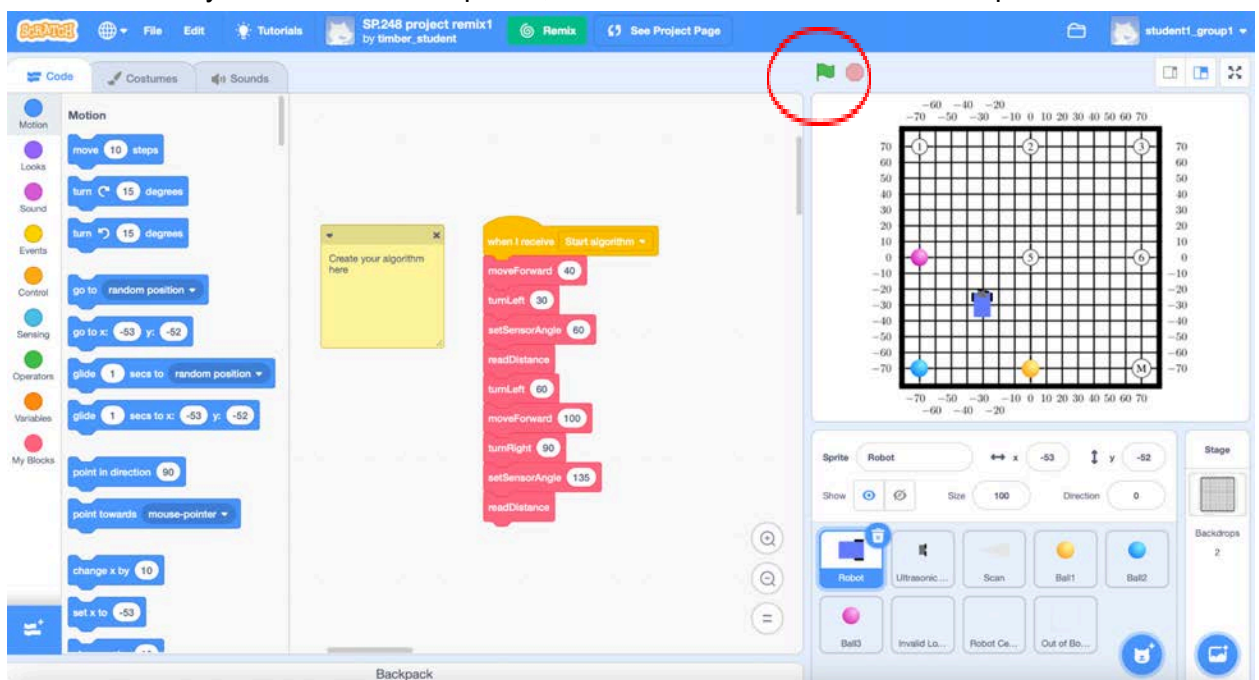
1. Using the login info from your teacher, register your student account
2. On your group page, click on your class studio and open the project
3. Click on the Remix button to make a copy of the project template



4. In the scripts for the Robot Sprite, find the note that says “Build your algorithm here”. You can navigate by dragging the open space with your mouse.

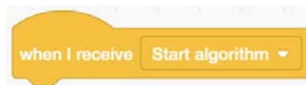


5. You will create your algorithm under the  block, using blocks from the section on the left. See instructions below for creating your algorithm.
6. Do not edit any other blocks of code (i.e. built-in functions on the Robot Sprite Script, code on other sprites, etc.). Do not edit any sprites or backgrounds.
7. To test your algorithm while you are making it, you can click the green flag. This will run your algorithm from the start of a round of searching. The ball locations will be randomized each time you click the green flag.
8. The timer will begin when the green flag is pressed and will automatically stop at the end of the challenge. Your program will terminate when the time limit is reached.
9. A points tally will be displayed in the corner representing the number of ball locations reached. 'Cherry' locations will add points, and 'bomb' locations will subtract points.



10. Once you have made your algorithm, you can submit your project directly to your instructor or upload the remixed project to the class/group studio.

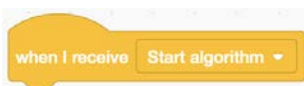
Creating your algorithm



- Make your algorithm under the block next to the “Build your algorithm here” note. Start by deleting any code blocks that are already there.
- You may only use blocks from the following categories:



- **Control** blocks are used for loops, if statements, and delays. They are not necessary but they help you create more complex and cleaner code.
- **Operators** are used within the Control blocks. They perform operations like math and comparisons. You can nest operators within other operators.
- **Variables** can be used within operator blocks. They can be used to store values like sensor readings from the robot.
 - Do not use or edit the variables that start with “internal:”. These variables are used internally to make the functions work. You can just ignore them.
 - There are some built-in variables that will store values when you use certain robot functions like readDistance. The built-in variables are angle, sensorDistance, xLocation, and yLocation. These variables will only update their values when the corresponding functions are run.
 - You can also create your own variables by clicking the “Make a Variable” button.
- **My Blocks** are built-in functions. These are the main robot functions that you will be using. They do things like make your robot move around the game board and get different sensor readings. Test them out by placing a block under the



block and click the green flag to see what they do.

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