

Name:

## Mission 3 Assignment – Light Show

Your CodeX has 4 RGB LEDs along its top edge. You can set these LEDs to any color under the sun. Look over the [mission reminders](#). Then go to [Mission 3](#) and get started.



### Mission 3: Light Show ✓

This project introduces the CodeX pixel LEDs, variables, and the sleep function.

1. Complete Objective #1. Read ALL the information for each objective! You do not need the CodeX for this part of the lesson.

What does RGB stand for, **and** what are they used for?

What are the 8 built-in colors mentioned so far?

2. Complete Objective #2 and Objective #3. Read ALL the information for each objective!

What does “sequentially” mean?

3. Complete Objective #4. Read ALL the information for the objective!

Why do you see only the last color when you run the code?

4. Complete the Quiz and Objective #5. Read ALL the information for the objective, and watch the video.

What does the CodeSpace debugger let you do?

5. Complete Objective #6 and Objective #7. Read ALL the information for each objective!

6. Complete Objective #8. Use CodeTrek if you aren’t sure what to do.

What is a “literal”?

What is a “variable”?

How do you define a variable?

7. Complete the Quiz.

8. Complete Objective #9. Use CodeTrek if you need a hint. There are more built-in colors than the 10 listed in Objective #1. Here is a list of all built-in colors:

BLACK, BROWN, RED, ORANGE, YELLOW, GREEN, BLUE, PURPLE, GRAY, WHITE, CYAN, MAGENTA, PINK, LIGHT\_GRAY, DARK\_GREEN, DARK\_BLUE

After you create a flashing warning sign, paste a snippet of your final code:

<p>What errors did you have while working on this program? Make a list of each error and how you fixed it. (Add more rows if needed).</p>		
	Error	How it was fixed

## Extension – Light Show

Your CodeX has 4 RGB LEDs that can be set to any color under the sun. Mission 3 used built-in colors, but you can set your own colors using RGB. Go through the [slides that discuss RGB](#) and set your own colors.

Modify your code to use functions and/or your own colors. Be creative and make your code really fun. If you encounter errors, add them to the table above. Paste a snippet of your modified code:

## Wrap Up – Clearing the CodeX

You will share the CodeX with other students, and whatever the last program you run on the CodeX remains on the CodeX. Go through the [Clearing the CodeX slides](#) to learn how to “erase” your code at the end of each day. Create the program and run it before you go to your daily reflection.

### SUCCESS CRITERIA:

- Define RGB, literal, and variable
- Define and use a variable used in sleep()
- Define and use a variable for color that is changed and used multiple times
- Debug any errors in the code and keep a debugging table
- Write a program, run it, and save it to the CodeX