

Name:

## Mission 7 Assignment – Personal Billboard

In this project you'll use the CodeX display and buttons to make a *billboard* that shows others how you're feeling, a fun picture, or a short message. [Mission Reminders](#)



### Mission 7: Personal Billboard ✓


Show images that match your current mood, and learn about Python lists.

You will create code during this lesson. When you encounter an error, make a note of what is happening and **document your debugging** process in the **table** below.

1. Read the introduction and complete Objective #1 and Objective #2. Answer the questions below.

What is the = used for?

What is the == used for?

Click on  **comparison operator**. What is the result of a comparison?

What are some comparison operators?

2. Objective #3 requires you to use the debugger and open the console. Follow the instructions carefully.

3. Complete the Quiz.

4. Complete Objective #4. You will fix an error in the code by adding more if statements. These if statements are embedded inside if statements you already coded. Be careful with your indenting! When you embed an if statement inside another if statement, it is called **nesting**.

5. Complete Objective #5. Click on  **list** and answer the following questions.

What is a list?

What do you use to create a list?

Is the order of a list important? Why or why not?

How do you find the length of a list?

6. Complete Objective #6. Answer these questions. Don't forget to click on  **upper case?**

Why is LAST\_INDEX in all capital letters?

Why do you subtract 1 in <code>LAST_INDEX = len(my_list) - 1</code>	
7. Complete the Quiz and Objective #7 and Objective #8.	
8. Complete Objective #9 and answer the following questions.	
What is a “tuple”?	
How can you check the type of a variable?	
When does the “else” part of a branch execute?	
<b>EXTENSION #1:</b> Using a different button (not R or L) program a “kill switch” to end the program.	
<b>EXTENSION #2:</b> Create a flowchart of your completed program.	
<b>EXTENSION #3:</b> Define and call at least one function in your mission code. See tip below.	
To turn in the assignment, download your code (FILE-DOWNLOAD), which will be a text file. Add your name in the filename. Then submit the file through Google Classroom or the class LMS.	

## Debugging Table

As you create code, you will make mistakes. Keep track of the mistakes in the table below. Doing so will help you become a more confident programmer. Add rows to the table as needed.

Error message that is displayed	Actual bug	How you fixed it

**SUCCESS CRITERIA:**

- Program the buttons to select from a series of images to show.
- Change the code to make it easy to add lots more images.
- Mix text messages with a selection of images and color.

### Programming tip:

The **button R** and **button L** conditions change the value of the variable **choice**. If you put the code in a function, you have to include **global choice** right after the function definition.

```
def buttons_push():  
    global choice
```