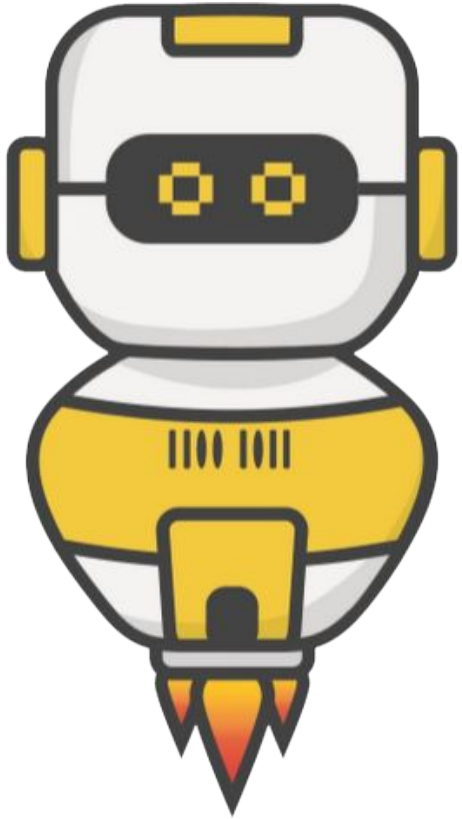
How to Make a Remix

Create your own Remix project

Pre-Mission Preparation

Answer these preparation questions:

- What was something cool about the Mission?
- What was something challenging about th Mission?



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Time for a project remix!

A remix can be:

- A new program created by adding new code to a program you already created
- You can combine parts of two or more programs in a remix
- Use a similar idea in a different way

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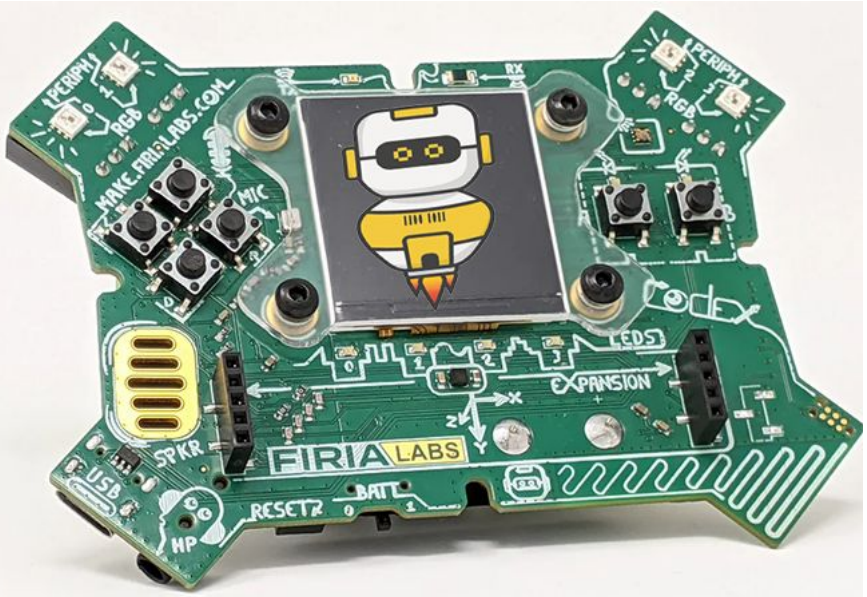
Project Remix

Creating a remix will let you:

- Master the skills and concepts practiced in the mission
- Be creative
- Remember code from earlier programs and missions
- Work with your peers
- Design an original program and write the code all on your own



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Step by Step...

- The next few slides show how to make a Remix for Mission 4.
- Use these Steps as a template to make your own Remix Prompt.

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Step #1

Review the mission

- Open your project from Mission 4
  - What does the program do?
  - What skills were used or concepts learned?

DO THIS:

- Fill out the information in the Mission 4 Remix Log for **Step 1**

```
from codex import *
from time import sleep

display.show("Press Button A")
sleep(1)
pressed = buttons.is_pressed(BTN_A)
if pressed:
    pixels.set(0, GREEN)
else:
    pixels.set(0, RED)

display.show("Press Button L")
sleep(1)
pressed = buttons.is_pressed(BTN_L)
if pressed:
    pixels.set(1, GREEN)
else:
    pixels.set(1, RED)

display.show("Press Button B")
sleep(1)
pressed = buttons.is_pressed(BTN_B)
if pressed:
    pixels.set(2, GREEN)
else:
    pixels.set(2, RED)
```

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Step #2

Brainstorm ideas

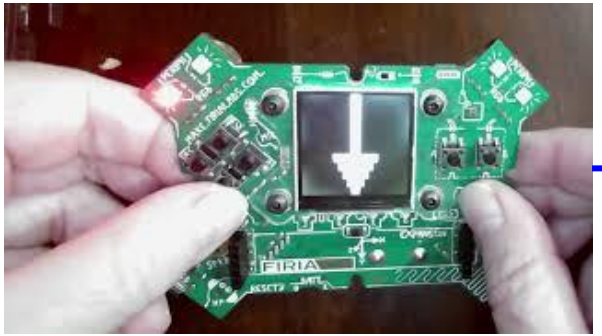
- Read through remix suggestions from your teacher

Three suggestions are on the next 2 slides. You can use one of these ideas or come up with your own.

Step #2 Remix Ideas

Mild

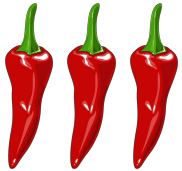
Add images to the code. When a pixel turns green, display an image like a happy face. When a pixel turns red, display a different image, like a sad face.



Medium

Use images instead of printed instructions. There are arrow images available. Display an arrow and check for the correct button. For example, the north arrow goes with BTN_U.

Step #2



Spicy

Use a color of pixel to indicate which button to press. For example, if a pixel turns red, press BTN_U. If a pixel turns blue, press BTN_D. And so forth. You could use six colors and all six buttons. Display one image (like the happy face) if they choose correctly and a different image (like a sad face) if they are wrong. You may want to include a set of print statements at the beginning that tell the button and color combination.

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Step #2

Brainstorm ideas

- Read through remix suggestions from your teacher (previous slides)
- Use your creativity to come up with your own idea for a project
- Decide with your partner what project you will do

DO THIS:

- Fill out the information in the Mission 4 Remix Log for **Step #2**

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Step #3

Make a plan

- What variables will you need?
  - Note: you do not have to use a variable for this remix
- What images will you display?

DO THIS:

- Fill out the information in the Mission 4 Remix Log for **Step #3**

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Step #4

Code your project

- **IMPORTANT:** Go to the sandbox to code the remix project 
  - Above toolbox in the lower right corner
- Start with a new file and give it a descriptive name (**Remix4**)
- You can leave **Display** open (use it as a guide)
- Import your modules
- Define your variables
- Write your code, testing frequently

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Step #4

Stop and test frequently!

- Don’t try to write all the code at one time
- Mistakes happen, so find them early
- Type just a few lines of code and then run the program
- If there is an error, fix it before continuing
- Use the debugger and your other programs for help

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Step #5

Documentation!

- Make sure your code is readable by adding blank lines
- Add comments to sections of your code that explain what they do

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Step #5

Get feedback

- Show your code to other students
- What do they think? Have them fill out the feedback form on your Mission 4 Remix Log
- Give yourself some feedback Is there something you want to change or improve or add? Fill out the feedback form on your Mission 4 Remix Log

Modify your code to make your project even better

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And now you have your own remix!

Congratulations!

By completing this remix you:

- are learning more about programming
- are synthesizing the skills and concepts from the missions
- are problem solving and much more!

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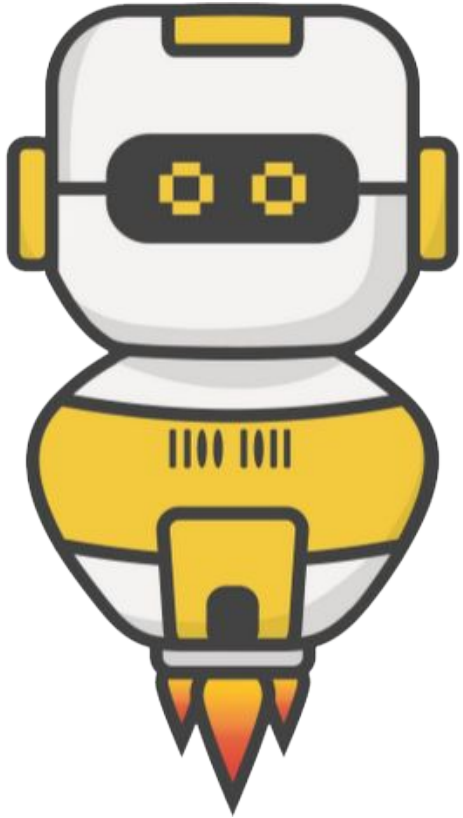
Mission Reflection

- Wow! Great job!
- Share your project with your friends!



- Don’t forget to clear your CodeX by running your **Clear** program

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