

# Mission 5 Remix

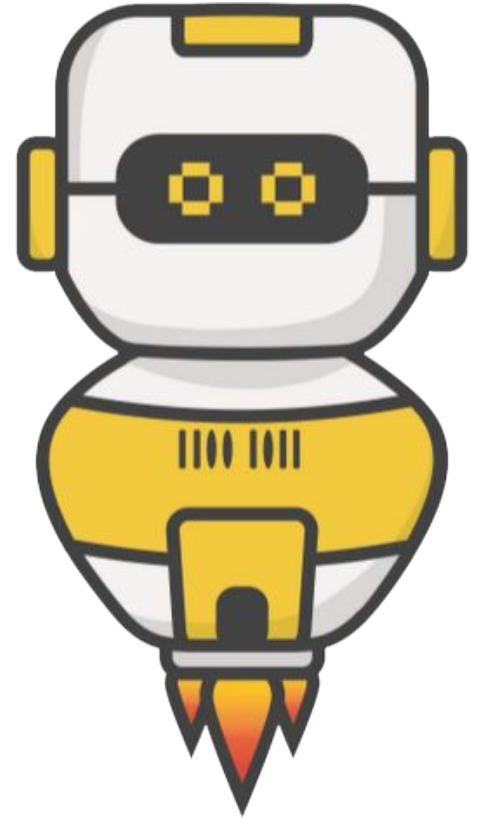
Create your own project from Mission 5



# Warm-up

In your Mission 5 Remix Log, answer the pre-mission preparation questions:

- What did you like about Mission 5?
- What didn't you like about Mission 5?



# 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





# Step #1

## Review the mission

- Open your project from Mission 5
  - What does the program do?
  - What skills were used or concepts learned?

### DO THIS:

- Fill out the information in the Mission 5 Remix Log for **Step 1**

```
Music1 x Music1_Remix1 x
1 # Student Name
2 from codex import *
3
4 # Display MUSIC pic
5 display.show(pics.MUSIC)
6 # Play Africa song
7 audio.mp3("sounds/africa")
8
```



# Step #2

## Brainstorm ideas

- Read through remix suggestions from your teacher

Six suggestions are on the next 3 slides. You can use any of these ideas or come up with your own.



# Step #2 Remix Ideas



Mild

Add a voice prompt for the game created in Mission 4 (Display). Either replace each `display.print()` and audibly prompt the user which button must be pressed, or include both the display and the audio.



Mild

Open the Mission 4 program (Display). Add an audio file to the if statements to indicate correct or wrong. You can use “okay” and “no” or any of the audio files.



# Step #2 Remix Ideas



Medium

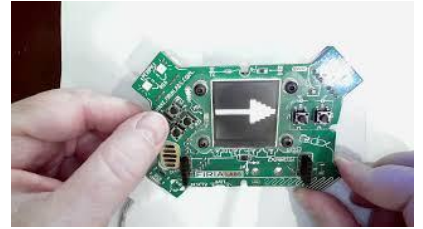
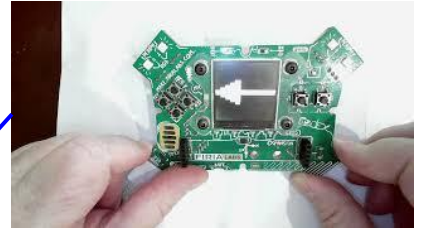
Program each button to do a different task. For example, BTN\_A could light pixels and display an image. BTN\_B could display an image and play audio. BTN\_U could cause pixels to blink random colors. And so forth.



Medium

Create turn signals for a bicycle. Press button L to turn left, button R to turn right. Blink to pixels to indicate the turn, and use an audio file to say the direction you are turning.

EXTENSION: use a while True: loop to use the turn signals more than once.



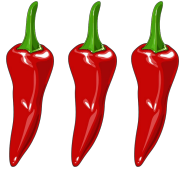
```
while True:  
    if statement:  
        Indented code for left signal  
    if statement:  
        Indented code for right signal
```

\* be careful with indenting  
\* you will need to physically stop the code





# Step #2



Spicy

Combine the two mild remixes into one program -- audio prompt for the button and audio file for correct or wrong. Also, add print statements at the beginning for an intro and a print statement at the end.



Spicy

Program at least three buttons to display a short poem and play an audio file.



# 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 5 Remix Log for **Step #2**



# 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?
- What audio files will you play?

DO THIS:

- Fill out the information in the Mission 5 Remix Log for **Step #3**



# Step #4

## Code your project

- **IMPORTANT:** Go to the sandbox to code the remix project
  - Above toolbox in the lower left corner
- Start with a new file and give it a descriptive name (**Remix5**)
- You can leave **Display** and/or **Music1** open (use them as a guide)
- Import your modules
- Define your variables
- Write your code, testing frequently



# 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



# 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



# Step #5

## Get feedback

- Show your code to other students
- What do they think? Have them fill out the feedback form on your Mission 5 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 5 Remix Log

## Modify your code to make your project even better



# And now you have your own remix!

## Congratulations!

By completing this remix you have:

- learned more about programming
- practiced the skills and concepts from the missions
- been thinking! And problem solving and much more!





# Mission Reflection

- Wow! Great job!
- Share your project with your friends!
- Complete your Mission 5 Remix Log
  
- Don't forget to clear your CodeX by running your **Clear** program

