FIRIA LABS

Remix 3: Missions 8-9

- Create a remix -- an original program -- based on Missions 8 & 9 (also Missions 3-7)

Remix Coding Project

Assignment:
Create a remix (your own original program) using the concepts from Mission 8 and 9 specifically. You will also use concepts from the earlier missions. Some suggestions are given below. Do as many remixes as you want to try.

Hints:

- Use the sandbox to code the remix project. The sandbox is found above the toolbox, in the lower left-hand corner.
- Start with a new file and remember to import your modules.
- To make a game, you will need to "nest" if statements within if statements.
- You can have several tabs open at the same time. Use your code from the last missions to guide you.

Mild

For a beginner or elementary school student

Create a dice roller, showing the number of a 6-sided die. Use the display functions to show large numbers, and be sure to provide user feedback of some sort while the "roll" is happening...

Example: Your program could do this:
Day3Remix Mild

Hints:
The following shows a large "6" on the display, waits a second, then clears it:

```
display.draw_text("6", scale=20, x=70, y=40)
sleep(1)
display.clear()
```

Extension:
Try saving some images in the size and compression needed to display on the CodeX. Upload them to the CodeX and change the AnswerBot to display images instead of text.

Example: Your program could do this:
Day3RemixImages

Medium

For an intermediate programmer or middle school student

Code a dice roller as above, and then create a "high-low" game that incorporates it. Button B is used to start or restart the game. At the start of the game the die is rolled. Then the player must press UP or DOWN to guess whether the next roll will be higher or lower than the number shown. If the guess is correct, pixel LED 0 is lit GREEN, and another roll begins. This proceeds until all 4 pixels are GREEN or the player guesses wrong and the game ends. Create a nice "winning" or "losing" sequence with the LEDs and display.

Example: Your program could do this:
Day3Remix medium

Hints:
This program can get a little complex

- Try using two number variables.

Spicy

For an advanced programmer or high school student

Enhance the Intermediate version of the high-low game. Some ideas:

- Make a graphical representation of the die (show the pips)
- Make the game 2-player (player A, player B in turns...)
- Make the die larger than 6-sided (use L/R buttons to increase or decrease sides)

Example: Your program could do this:
Day3Remix Spicy1
Day3Remix Spicy3

Extension:
Be creative and see what you can do by coming up with your own program.

Hints:
For graphics, see
`draw_circle()` -- or --
`fill_circle()`
in the docs for details on positioning "dots" on the display.

	• Stop the loop when count is 4 or the incorrect button is pressed	Graphics drawing canvas — Firia Labs 1.3 documentation `fill_circle(x, y, radius, color=(255, 255, 255))`