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| Name: | **Remix 2 Project Planning Guide** |
| **Remix Step 1: Review your code from Mission 4, 5 and 6** | |
| Mission 4: Hatch Lock!  What does this program do? What programming concepts did you learn and use? |  |
| Mission 5: Alert System!  What does this program do? What programming concepts did you learn and use? |  |
| Mission 6: Life Support!  What does this program do? What programming concepts did you learn and use? |  |
| **Remix Step 2: Remix Project Concept** | |
| Look over the remix suggestions. Discuss with a partner. Then decide what you want to do for your remix project. Describe your remix project: |  |
| **Remix Step 3: Plan your code.** Answer the questions below to help you plan and design the remix project before you start to write code. | |
| What peripherals will you use, and what is their purpose: | |  |  | | --- | --- | | Peripheral: | Used for: | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |
| What variables and constants will you need? Give their name and value or assignment. | |  |  | | --- | --- | | Variable / Constant | Value or assignment | |  |  | |  |  | |  |  | |  |  | |  |  | |
| Write an algorithm for your code. What are the steps for completing the task? |  |
| **Remix Step 4: Write your code** | |
| Start a new file. Use the sandbox  when you write the code. Write just a few lines at a time and test often. | |
| **Remix Step 5: Commenting and feedback** | |
| Documentation | * Make sure your code is readable by adding blank lines * Add comments to explain sections of code |
| **Peer feedback:** Get feedback from two (or more) people. You can be one of the peer reviewers. | |
| **Peer Review #1 Name:** |  |
| Go through the checklist. Are all requirements met? If not, list any missing criteria. |  |
| What do you like about the program – be specific! |  |
| Give at least one suggestion. Begin with “what if” or “maybe you could” |  |
| **Peer Review #2 Name:** |  |
| Go through the checklist. Are all requirements met? If not, list any missing criteria |  |
| What do you like about the program – be specific! |  |
| Give at least one suggestion. Begin with “what if” or “maybe you could” |  |
| Review the comments. Then take time to improve or add to your project. | |
| **Post-Mission Reflection** | |
| What did you change in your project after reading the feedback? |  |
| What did you learn about yourself from completing this project? |  |

**Remix 2 Project Rubric Checklist:**

* New file is used and filename is descriptive
* At least one LED is used, with appropriate constants and function
* At least two additional peripherals are used, with appropriate constants and functions
  + Microswitch
  + NeoPixel ring
  + Temperature sensor
  + Sound sensor
  + Servo
* Uses at least one new programming concept
  + Random numbers or colors
  + Finite state machine with states and transitions
  + Turn on a combination of pixels on the NeoPixel ring
  + Return function
* Includes something extra (sound, additional peripherals, screen display, etc.)
* Includes comments and whitespace for readability
* Code runs with no errors