| Name: | **CodeAIR Unit 2 Remix Project Planning Guide** |
| --- | --- |
| **Remix Step 1: Review your code from Mission 4 and Mission 5** |
| **Mission 4: Flight Safety**During the mission you completed 1 program: ***safety.py***. Describe what the program does, and the programming concepts learned and used: |  |
| **Mission 5: Hovering Flight**During the mission, you completed 6 programs: ***Hover, Rangers, Ceiling, Theremin, HallMonitor, Avoidance***. Describe each one, and the programming concepts learned and used: |  |
| **Remix Step 2: Remix Project Concept** |
| Discuss remix ideas with your partner. Then decide what you want to do. 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 variables and constants will you need? How will you use them?Add more if needed |

| Variable or constant name | How it will be used / data stored |
| --- | --- |
|  |  |
|  |  |
|  |  |

 |
| What will you use the blue and pixel LEDs for? Will you need a variable, loop or if statement to control the LEDs? |  |
| Will you incorporate sound into your project?  |  |
| How will you use a loop?How will you use an if statement? Add more if needed |

| Loop type / purpose | If statement / used for… |
| --- | --- |
|  |  |
|  |  |

 |
| What flying will you have the drone do? |  |
| Use another sheet of paper and write an algorithm for your project. |
| **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. You can use your completed programs as a reference and to help you with the code. |
| **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 concepts from Mission 4 and Mission 5 did you use in the remix project? |  |
| What is something you will remember about this project? |  |

**Unit 2 Remix Project Rubric Checklist:**

* New file is used and filename is descriptive
* Use at least one variable
* Turns on at least one blue LED
* Turns on at least one pixel LED
* Uses at least one loop
* Uses at least one if statement
* Moves the drone using flying statements
* Uses data from at least one sensor
* Has a purpose and is different from required programs
* Includes comments and whitespace for readability
* Code runs with no errors