

Name:	<b>Unit 4 Remix Project Planning Guide</b>
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**Remix Step 1: Review your code from Mission 10 and Mission 11.**

Mission 10: Fido Fetch What does this program do? What programming concepts did you learn and use in each mission?	
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Mission 11: Airfield Ops What does this program do? What programming concepts did you learn and use in each mission?	
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**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:	
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**Remix Step 3: Plan your code. What variables will you use in the project?**  
 Fill out the charts below. Use another piece of paper to design your program with an algorithm.

What global variables and constants will you use in the project? Fill in the chart. You do not need to fill in every line, or you can add more.	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Variable Name</th> <th style="width: 50%;">What it will be used for:</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Variable Name	What it will be used for:								
Variable Name	What it will be used for:										

What list or dictionary will you use? Describe it in the space provided:	
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<p>What will you use for input (input() or buttons pressed). Describe the input and expected outcome.</p>																
<p>What functions will you write? Describe each one.</p> <p>Add more rows as needed.</p>	<table border="1"> <thead> <tr> <th data-bbox="675 327 956 390">Function name</th> <th data-bbox="956 327 1463 390">What it will do</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>		Function name	What it will do												
Function name	What it will do															
<p>Extras: What else will you need for your program? (sound, LEDs, etc.) Describe extra code you will use in the space provided:</p>																
<p><b>Remix Step 4: Write your code</b></p>																
<p>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 choose which 3D environment you want for the remix project.</p>																
<p><b>Remix Step 5: Commenting and feedback</b></p>																
<p>Documentation</p>	<ul style="list-style-type: none"> <li>• Make sure your code is readable by adding blank lines</li> <li>• Add comments to explain sections of code</li> </ul>															
<p><b>Peer feedback:</b> Get feedback from two (or more) people. You can be one of the peer reviewers.</p>																
<p>Peer Review #1 Name:</p>																
<p>Go through the checklist. Are all requirements met? If not, list any missing criteria.</p>																
<p>What do you like about the program – be specific!</p>																
<p>Give at least one suggestion. Begin with “what if” or “maybe you could”</p>																

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.	
<b>Post-Mission Reflection</b>	
What did you change in your project after reading the feedback?	
What abstractions did you use in this program? How does the abstraction manage complexity in your code?	

#### Unit 4 Remix Project Rubric Checklist:

- Filename is descriptive
- Uses global and local variables appropriately
- Uses at least one concept from Mission 10:
  - Define and use a dictionary
  - Iterate over a dictionary
  - Add a key:value pair to a dictionary
- Uses at least one concept from Mission 11:
  - Increment a counter
  - Math operations: //, %, \*\*
  - Control LEDs with a Boolean list
- Defines and calls at least one function
- Gets input from the user (button press, input() function)
- Includes something extra (sound, more than one sensor, more than one function, more LEDs, etc.)
- Code follows programming conventions of comments, readability, indenting, and capitalization
- Code runs with no errors

