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| Name: | **Unit 3 Remix Project Planning Guide** |
| **Remix Step 1: Review your code from Mission 7, 8 and 9.** | |
| Mission 7: Line Sensor  What does this program do?  What programming concepts did you learn and use in each mission? |  |
| Mission 8: Boundary Patrol  What does this program do?  What programming concepts did you learn and use in each mission? |  |
| Mission 9: Line Follower  What does this program do?  What programming concepts did you learn and use in each mission? |  |
| **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. 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. | |  |  | | --- | --- | | Variable Name | What it will be used for: | |  |  | |  |  | |  |  | |  |  | |
| What list or dictionary will you use? Describe it in the space provided: |  |
| What buttons will you use, and what will happen when pressed? | |  |  | | --- | --- | | Button | What will happen: | |  |  | |  |  | |
| What functions will you write? Describe each one. | |  |  | | --- | --- | | Function name | What it will do | |  |  | |  |  | |
| Extras:  What else will you need for your program?  (sound, LEDs, etc.) Describe extra code you will use in the space provided: |  |
| **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 choose which 3D environment you want for the remix project. | |
| **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 is something new you learned about programming from completing this project? |  |

**Unit 3 Remix Project Rubric Checklist:**

* Filename is descriptive
* Uses global and local variables appropriately
* Uses one or more constants, each with a descriptive name
* Uses line sensor data to control CodeBot’s movement
* Uses LEDs to communicate information (user LEDs and/or line sensor LEDs)
* Defines and calls at least one function
* Uses a list or dictionary
* Gets input from the user (button press, input() function)
* Includes something extra (sound, more than one sensor, more than one function, etc.)
* Code follows programming conventions of comments, readability, indenting, and capitalization
* Code runs with no errors