| Name: | Unit 5 Remix Project Planning Guide |
|---|---|

**Remix Step 1: Review your code from Mission 12 and Mission 13.**

| Mission 12: King of the Hill<br>What does this program do?<br>What programming concepts did you learn and use in each mission? | |
|---|---|
| Mission 13: Going the Distance<br>What does this program do?<br>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 sensor(s) will you read?<br>How will you record the data? | |
|---|---|

| What will you use for input (input() or buttons pressed). Describe the input and expected outcome. | |
| --- | --- |

| What functions will you write? Describe each one.<br><br>Add more rows as needed. | |
| --- | --- |

| Function name | What it will do |
| --- | --- |
| | |
| | |
| | |
| | |
| | |

| Extras:<br>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<br>● 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 was your initial idea for the project? How did this idea change over time while working on the project? | |
| What was challenging about this project? Why was it challenging, and how did you show grit? | |

## Unit 5 Remix Project Rubric Checklist:

- ☐ Filename is descriptive
- ☐ Uses global and local variables appropriately
- ☐ Reads one or more sensors: wheel encoder or accelerometer
- ☐ Uses the data from the sensor reading to control the CodeBot
- ☐ Controls one or more peripherals: LEDs, sound, motors
- ☐ Uses one or two buttons as input
- ☐ Defines and uses at least one function
- ☐ Uses at least one list or tuple for data from a sensor
- ☐ CodeBot drives to a given destination
- ☐ Includes something extra (sound, more than one sensor, more than one function, both buttons, etc.)
- ☐ Code follows programming conventions of comments, readability, indenting, and capitalization
- ☐ Code runs with no errors