



Unit 1 Remix Project	Time Frame: 2-5 hours
<p><b>Project Goal:</b> Students will use the skills and concepts they learned in the unit to create their own project.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>I can summarize the programming concepts from Missions 2 &amp; 3.</li> <li>I can plan an original program.</li> <li>I can create an original program using concepts and code from previous programs.</li> <li>I can get feedback on my project.</li> </ul>	<p><b>Key Concepts</b></p> <ul style="list-style-type: none"> <li>Code segments from previous programs can be reused and repurposed in a new project.</li> <li>The program development in the planning guide follows the software design process.</li> <li>Creating a new project from the beginning, without CodeTrek or starter code, is an excellent way for students to master their learning and gives them an opportunity to express themselves and work on something that interests them.</li> </ul>
<p><b>Assessment Opportunities</b></p> <ul style="list-style-type: none"> <li>Unit 1 Remix Planning Guide</li> <li>Unit 1 Remix Project</li> </ul>	<p><b>Success Criteria</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Plan an original program</li> <li><input type="checkbox"/> Create an original program</li> <li><input type="checkbox"/> Incorporate feedback in a program</li> </ul>
<p><b>Teacher Materials in Learning Portal</b></p> <ul style="list-style-type: none"> <li>Unit 1 Remix Project slides</li> <li>Unit 1 Remix Planning Guide</li> </ul>	<p><b>Additional Resources</b></p> <ul style="list-style-type: none"> <li>Students can use their previous programs as a guide throughout this project.</li> </ul>
<p><b>Teacher Notes:</b></p> <ul style="list-style-type: none"> <li>A remix for this unit is optional. Unit 1 is a very long unit, with several lessons. If you feel like students have had enough practice through the lessons, you can skip the remix. However, it is an excellent opportunity for students to create their own original program by doing something that interests them. And the remix project gives students a chance to practice and apply what they have learned.</li> <li>Students can work with a partner for this project. Collaboration is an important skill. Students will be programming both CodeBot buttons. As one option, if working with a partner, each student could write code for one of the buttons, and they can combine the code into a finished project.</li> <li>A set of slides is prepared to explain the project and give step by step guidance. The slides also give some suggestions for the project. The suggestions are meant to help students think of their own ideas and should not be required. They can be used for students who are drawing a complete blank, or as inspiration.</li> <li>A planning guide is provided to help students know where to start, and to guide them throughout the process. You can modify the planning guide as needed by changing or adding to the questions.</li> <li>Consider how you want to end the remix project. You can have students present them to the class, have a “gallery walk” of projects, have students create a slide show about the project, etc.</li> <li>A checklist for the remix project is below.</li> </ul>	

**Remix Project Checklist:**

- ☐ Filename is descriptive
- ☐ Uses one or more variables, each with a descriptive name
- ☐ Moves the CodeBot forward and/or backward at least once
- ☐ Rotates the CodeBot at least once
- ☐ Uses a sleep delay at least once
- ☐ Turns on at least one LED light
- ☐ Uses two buttons as input
- ☐ Modify program based on user feedback
- ☐ Includes comments and blank lines for readability
- ☐ Code runs without errors