Unit 2 Remix Project	**Time Frame: 3-5 hours**
Project Goal: Students will use the skills and concepts they learned in the unit to work as a cooperative team to create their own project. **Learning Targets** • I can summarize the programming concepts from Mission 4. • I can plan an original program. • I can create an original program using concepts and code from previous programs. • I can work cooperatively in a team. • I can get feedback on my project.	**Key Concepts** • Code segments from previous programs can be reused and repurposed in a new project. • The program development in the planning guide follows the software design process. • 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.
Assessment Opportunities • Unit 2 Remix Planning Guide • Unit 2 Remix Team Planning & Review Guide • Unit 2 Remix Project	**Success Criteria** ☐ Plan an original program ☐ Work collaboratively in a team ☐ Create an original program ☐ Incorporate feedback in a program
Teacher Materials in Learning Portal • Unit 2 Remix Project slides • Unit 2 Remix Planning Guide • Unit 2 Remix Team Planning & Review Guide	**Additional Resources** • Students can use their previous programs as a guide throughout this project.

Teacher Notes:

- A remix for this unit is optional. Unit 2 is very short, and a remix is an excellent opportunity for students to create their own original program by doing something that interests them.
- This remix is planned as a team project with students working collaboratively and with a timeline. The team plans the project, and then each student works independently on their own program that accomplishes a single task. The team combines code for a complete project. This follows the steps they use in Unit 2 throughout Mission 4.
- Suggested team size is 3 or 4 students for this project. Collaboration is an important skill and a team project meets several CSTA standards.
- 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.
- Two planning guides are provided. Students start with an individual planning guide 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. The second is a team planning guide. Once each individual program is ready, team members will work together to combine their code.
- Students will need a way to share their code. There are many ways to do this. They can email the code to each other, download the code to a flash drive, use the class LMS, copy to a shared Word document, etc.
- In the team planning guide, each team is asked to get more peer reviews. They can ask other students or adults in the class, or you might want to bring in a different class and have those students review projects to get a different perspective.
- A new question is asked on the second peer review. This is about accessibility. A CSTA standard requires students to think about the impact of technology and how it can be improved to help all people.
- 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 or video about the project, etc.
- A checklist for the remix project is below.

Remix Project Checklist:

- [ ] Filename is descriptive
- [ ] Uses one or more variables, each with a descriptive name
- [ ] Uses one or more constants, 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 at least one button for input
- [ ] Uses the CodeBot speaker
- [ ] Defines and calls at least one function
- [ ] Modify program based on user feedback
- [ ] Includes comments and blank lines for readability
- [ ] Code runs without errors