

Sample Project 1 – Chip Tunes

The Chip Tunes project is meant to serve as a gentle introduction to our programming environment for the students. While there is plenty of room for creativity, nearly all students should be able to create a working program which plays some kind of “song”. Our example projects here are meant to show the kinds of creative improvements that students can make to a basic, boring program. We hope your students will work hard and enjoy themselves to produce some of their favorite tunes.

C

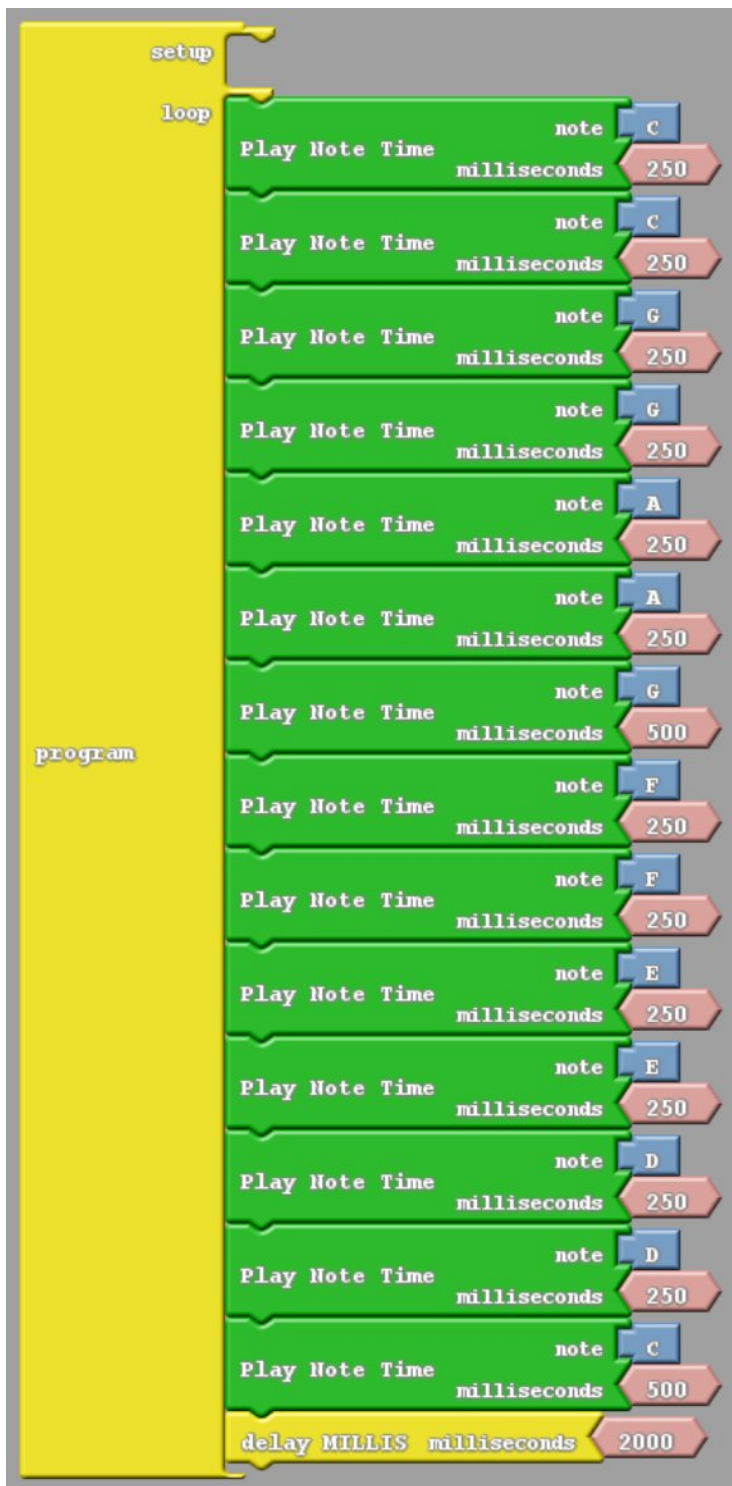


Our “C” level program is perfectly functional for playing sound out of the speaker, but most people would consider it boring or even kind of annoying. This program simply plays three notes (A, B, C) over and over for one second each. Students who produce something this simple should be encouraged to aim for a recognizable or pleasant melody and to consider changing the lengths of their notes to produce more interesting songs.

[Video](#)

TODO: C level video

B



Our "B" level program improves upon the "C" level program by creating a more complex and interesting song. These songs do not necessarily need to be very long, but they should either be recognizable or interesting and pleasant to listen to. Students who produce something at this level who still have time should be encouraged to make the song their

own by adding LED blocks to their program or using loops and variables to make their program more complicated and interesting.

[Video](#)

TODO: B level video

A



Our "A" level program shows effort to make something unique and interesting. Please note that the supplied example program is only part of a larger program, and many "A" level programs will be longer than "B" and "C" level ones in order to create longer songs. Students at this level will show mastery of blocks which create loops, delays, and potentially the use of variables to set pitches or the tempo of the song. Songs at this level should be melodic, and will often be real songs students create by converting from sheet music or note names found online. Many students at this level will make their programs more fun by implementing the LEDs for a visual component of the program. Students who create work at this level should be commended for going above and beyond and strongly encouraged to do so on the other projects.