# ES-2 Final Project: Initial Report

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**Student Lab section**: Section LJ

**Project title**: Morse Code Decrypter

## Abstract:

Secret messages can easily be sent via Morse code. However, to traditionally decrypt these messages, one had to carefully listen to the audio and recognize the different letters being played. To do this, one had to learn the entire Morse alphabet and become experienced at listening to audio files. This is a relatively time consuming process, so a Morse code computer program could be used instead. As long as the user has the program and an audio file, the user can understand the contents of a Morse message.

## Brief description (1-2 sentences each)

Overall idea

Build a Morse code decrypter program which reads in an audio file and gives an output of the interpreted message.

Numerical methods used

Use a moving average filter equation (given) to find the amplitude of a sound envelope.

Expected example

150107\_075WPM.mp3 (given Morse sound file)

Expected output files

The secret message from the Morse sound file.

## Preliminary software design

* Read in a sound file (user input)
* Recognize each of the Morse letters and spaces in the sound file.
  + Morse code alphabet needed
* Print out the message

## Issues or concerns

* Feasibility of completing project in 2 weeks
* How to get computer to recognize what a Morse letter sounds (or looks like in a sound file) like