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Project Proposal

Overview:

The “Morse Code Games” aims to educate the user on how to decipher Morse code through two different games. The LCD screen will ask the user how they would like to play the game: responding in morse through the use of the processor’s button, or responding in English through termite and will choose by typing “1” or “2” in Morse. In the first game, a buzzer will buzz dashes and dots, and the user would have to respond what was said through termite. The LCD will display whether the user was correct or not and keep score. In the second game, termite will display a sentence and the user would have to translate in morse code correctly to earn their point. The buzzer will make a noise for dots and dashes.

(Website: <https://sites.google.com/view/themorsecodegames/home>)

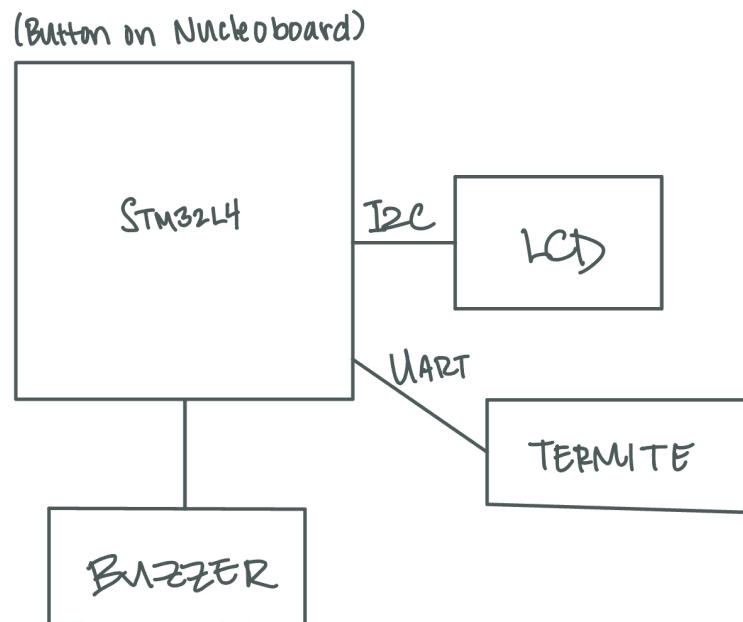
Peripherals:

- LCD Screen
- Piezo Buzzer

Serial Interface Protocols:

- I2C, UART

Block Diagram:



Software Structure:

- Timer used to detect whether a button press is a dot, dash, or space between characters
- Timer will also potentially be used to limit the amount of time the user has to respond
- LCD screen displays some messages to the user and keeps score (I2C)
- Termite records user responses, but also displays messages depending on game played (UART)
- Buzzer used to indicate sounds of dot and dashes and will (potentially) occur after button presses