Project Proposal: Morse Code Encoder and Decoder

Abstract:
Our goal is to implement a Morse code encoder and decoder. We will be using two boards, one to encode Morse code, and the other to decode. The encoder board will intake data and send out the Morse code translated from text received from a computer via a speaker. Then the decoder board will use a microphone to receive the Morse code, decode it, and display the message on an LCD display.

Peripherals:
- Digital Microphone
- Analog Speaker
- LCD Screen

Serial Interface Protocols:
- I2S (Mic)
- SPI (LCD)
- UART (Computer)

Block Diagram: