

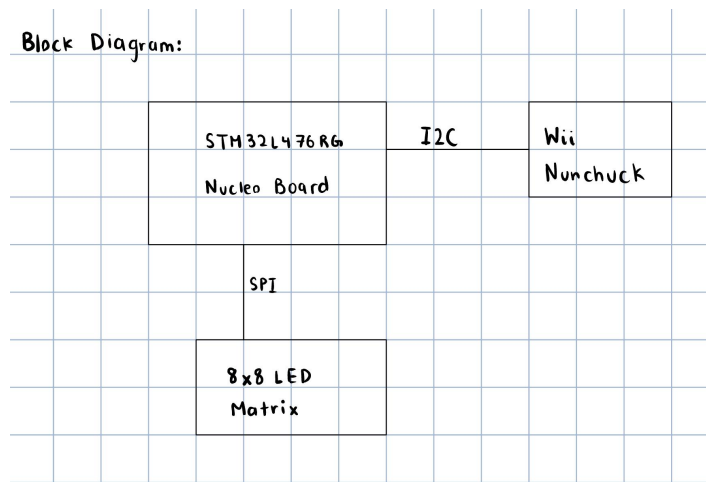
ECE 153B Winter '23 Project Proposal

1. Overview/Goal/Purpose: Our goal is to use a user interface and display to make a Connect 4 game. The two players will take turns using the wii nunchuck to place their piece and the first player to get 4 of their color in a row wins. The board will be a normal 7x6 connect 4 board displayed on an 8x8 dot matrix display.

2. Peripherals: Wii Nunchuck and 8x8 Display

3. Serial interface protocols: I2C (nunchuck) and SPI (display)

4. Block Diagram:



5. Responsibility List:

Alex: 50% coding
Logan: 50% coding

6. Software Structure:

- Use interrupts to trigger game designed features
- Registers used for SPI and I2C interfacing
- Users will take turns playing the game on a Wii nunchuck. The game will be displayed on the LED Matrix screen. Different states will be used and considered throughout the game to check for game termination, valid turns, game winner, etc.

Link To Website:

<https://sites.google.com/view/ece153b-connect-4/home>