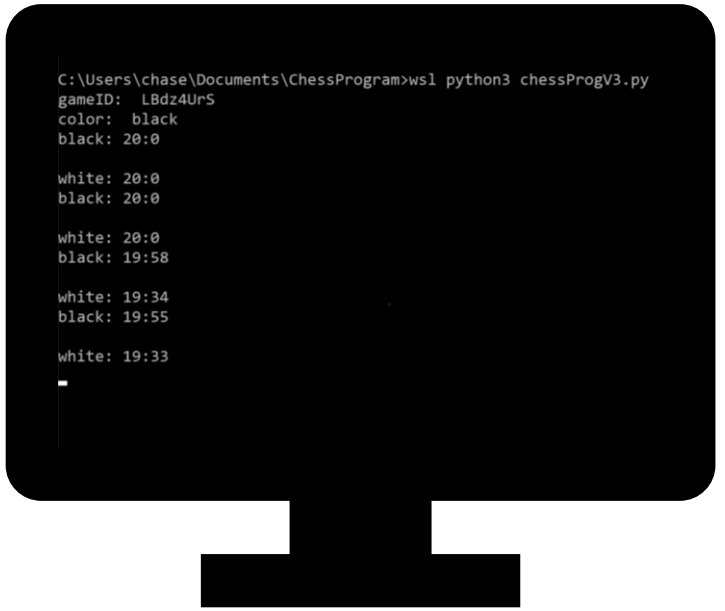
Standard Lichess Interface

- Players use their mouse to drag pieces to new squares
- All information is displayed on the screen
- This is what the other player sees

Electronic Chess Board User Interface

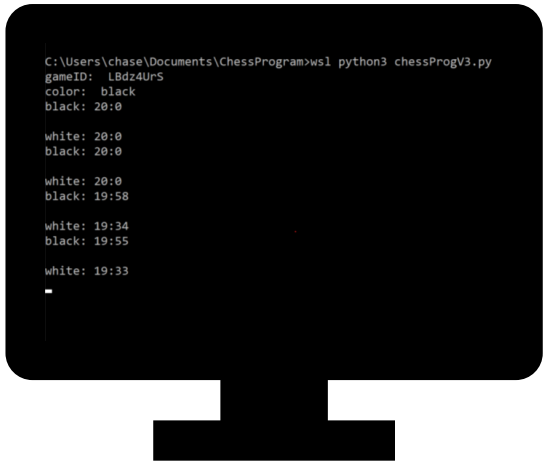
- All 64 squares have a button and LED
- To move a piece, you click the button on its starting square, then the button on its final square
- When the other player moves a piece, the LEDs on the starting and final squares light up



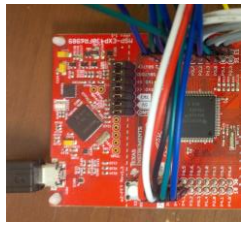
- The time left on each player's clock is displayed on the monitor at the start of their move

Electronic Chess Board Control Flow

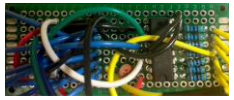
Python communicates with the Lichess API



UART between Python and Launchpad

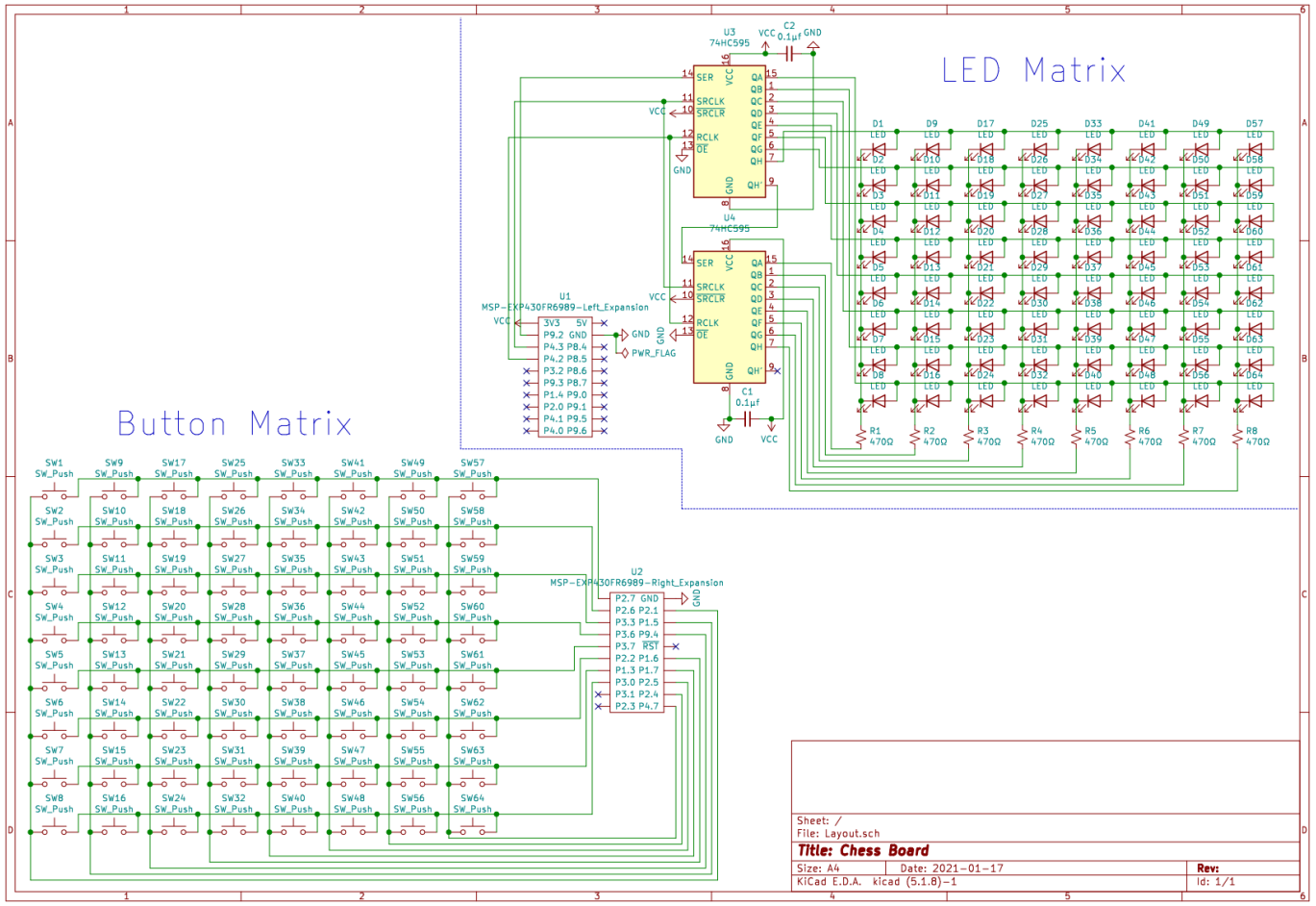


Launchpad sends LED information to shift register



Shift registers drive the LED matrix

Launchpad reads input from the button matrix



Circuit Diagram