

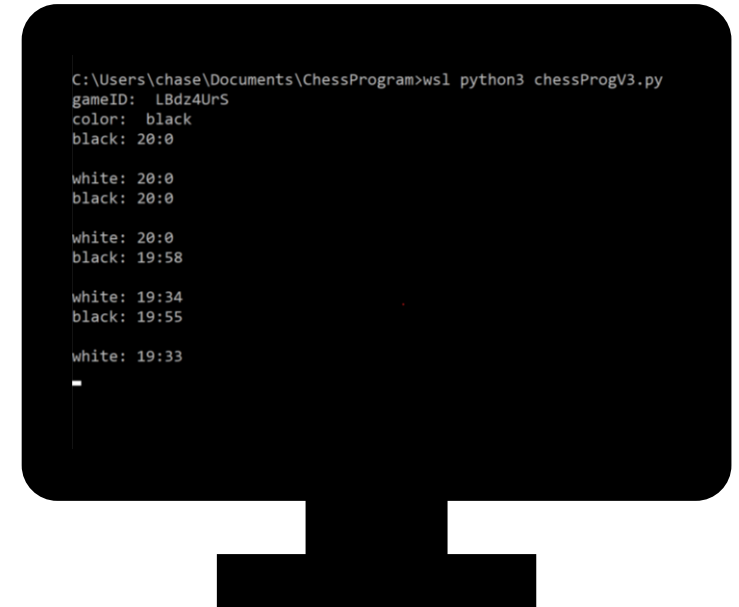
# Standard Lichess Interface

- 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 an 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

Web Server



Python communicates  
with the Lichess API



```
C:\Users\chase\Documents\ChessProgram>ws1 python3 chessProgV3.py
gameID:  LBdz4UrS
color:  black
black:  20:0

white:  20:0
black:  20:0

white:  20:0
black:  19:58

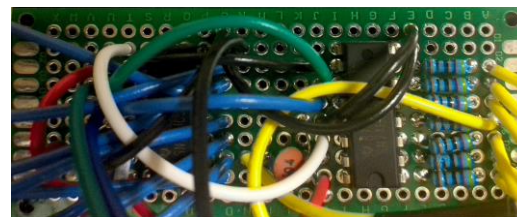
white:  19:34
black:  19:55

white:  19:33
_
```

UART between  
Python and  
Launchpad



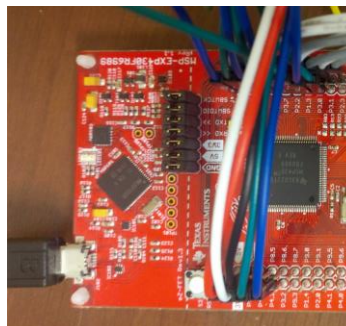
# Electronic Chess Board Communication Flow



Shift registers drive  
the LED matrix



Launchpad sends LED  
information to the shift  
registers



Launchpad reads  
input from the  
button matrix

