**Assignment 7.1: Report**

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**YouTube Links:**

<https://www.youtube.com/watch?v=snuCtjRLaCk>

<https://www.youtube.com/watch?v=eaO8vBzA9p4>

<https://www.youtube.com/watch?v=UCmoJoPv05Y>

**Description:**

In this lab, we learned how to interface the ATmega328 with a shift register, specifically the 74HC595 Shift Register. To send data to the shift register, first the latch pin must be pulled low, which prevents the current output from changing while we load new data. Then the data can be sent while pulsing the clock pin. Finally, by setting the latch pin high, the new shift register data can be sent to the output. We used this initially to create a basic static LED pattern. Then, we created a light rider pattern using the shift register. Finally, we created a bar graph using the shift register.