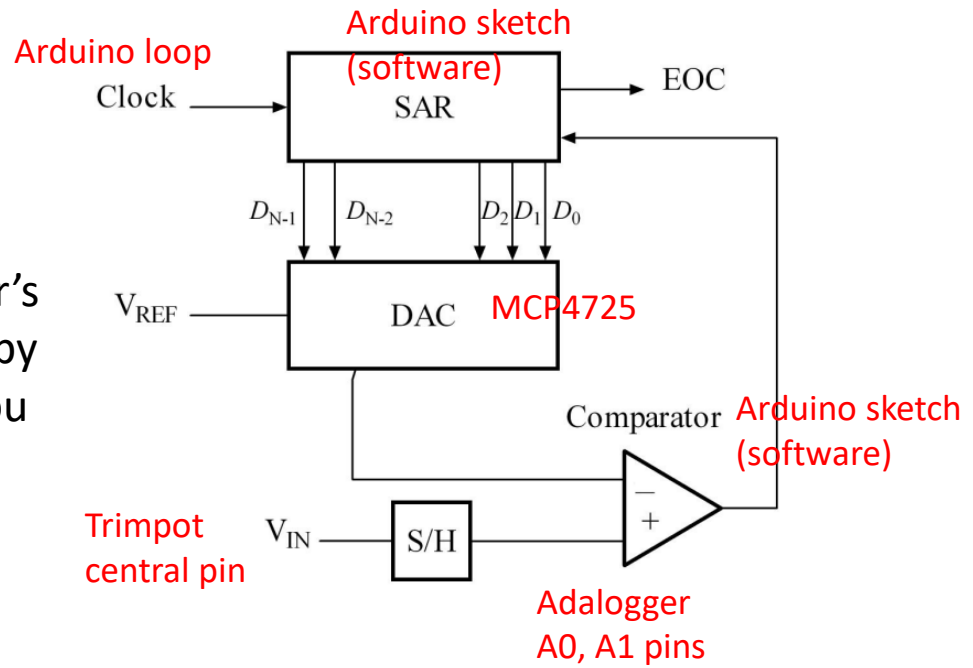
Homework (due 11/19(!)) : SAR Emulator

12-bit SAR ADC of an unknown voltage (from the trimpot). To digitize the voltage from an adjustible trimpot, use the MCP4725 DAC and an Adalogger's ADC input pin to code up a 12-bit successive approximation ADC algorithm by defining a 12-bit SAR, as described, and setting or clearing various bits as you hunt for the DAC voltage that's closest to the voltage on the trimpot center pin.



Homework (due 11/19): The light flickers!
Many lights flicker (LCD screens, lightbulbs connected to AC power, LED light bulbs, etc.). Choose a light source and using the intensity meter (**AS7341)** to determine if its output is flickering, and if so at what frequency.

a. First, you'll need to position the light sensor to your light source.
b. Sample the signal at high rate and look for patterns in the intensity vs time.
c. Extra: Do a Fast Fourier Transform to find the frequencies of the light flicker.