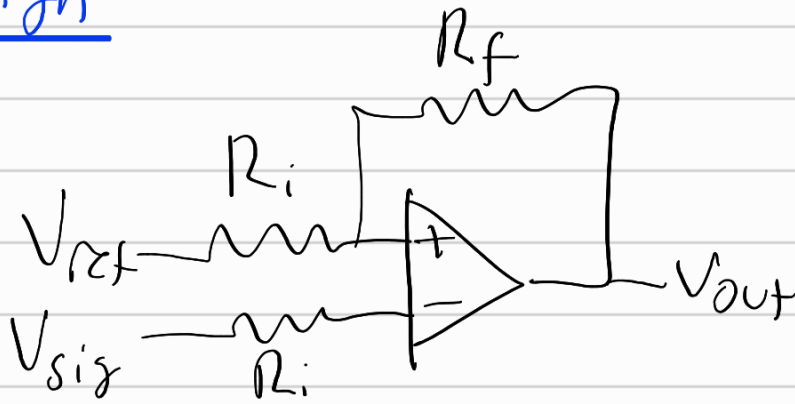


## Design



$$V_{Hyst} = \frac{R_i}{R_i + R_f} (V_{OH} - V_{OL})$$

$$= \frac{100}{100 + 1M} (6.76 + 7.68)$$

$$= 0.00144$$

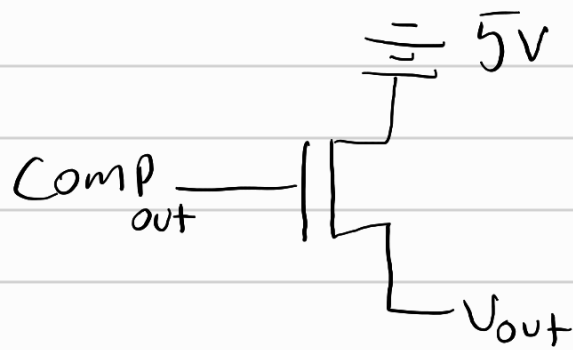
$$S/H > DAC = 6.76V$$

$$S/H < DAC = -7.68V$$

## Design pt. 2

Outputs are not close enough to 5V or 0V for SAR

Solution: Use comparator output as gate voltage for NMOS with 5 volt supply.



## Testing

Target Value	Measured Value
100 $\Omega$	98.3 $\Omega$
1M $\Omega$	.989M $\Omega$
5V	4.58V
0V	0.64mV

