Comparators
Comparator Basics

input A  +  digital output  1 (A > B)
input B  -  0 (B > A)
Introducing Hysteresis

\[ \Delta V_H = \frac{R_1}{R_1 + R_2} V_{cc} \]

1 (A > B)
digital output
0 (B > A)
LM393 dual comparator

(note - beware the open-collector outputs!)
(dealing with Open-Collector Outputs)