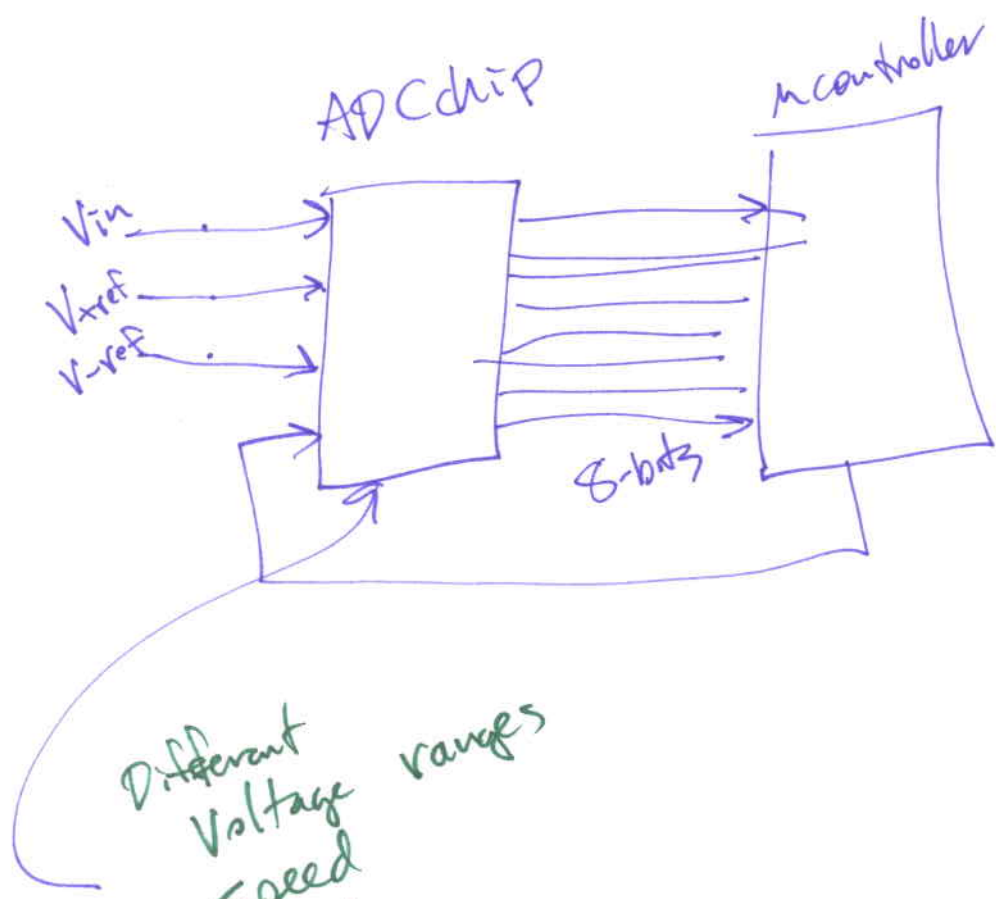


①



Different voltage ranges  
speed  
# bits

8-bit ADC

$V_{+ref} = 12V$

$V_{-ref} = -12V$

If input is 5.8V, what is the 8-bit digital value?

$$N = \left\lfloor \frac{V_{in} - V_{-ref}}{V_{+ref} - V_{-ref}} * 2^N - 1 \right\rfloor + 1/2 \text{ int}$$

80% of 255 around 200

# Embedded Systems

9/25/2013

Find my number between  
& guesses

0 and 255

(2)

127	↓
96	↓
48	↑
66	↓
55	↑
60	↑
63	↓
62	↓

---

127	↓
63	↓
32	↑
48	↑
56	↑
60	↑
62	↓
61	!

(56 to 63)  
(60 to 63)

