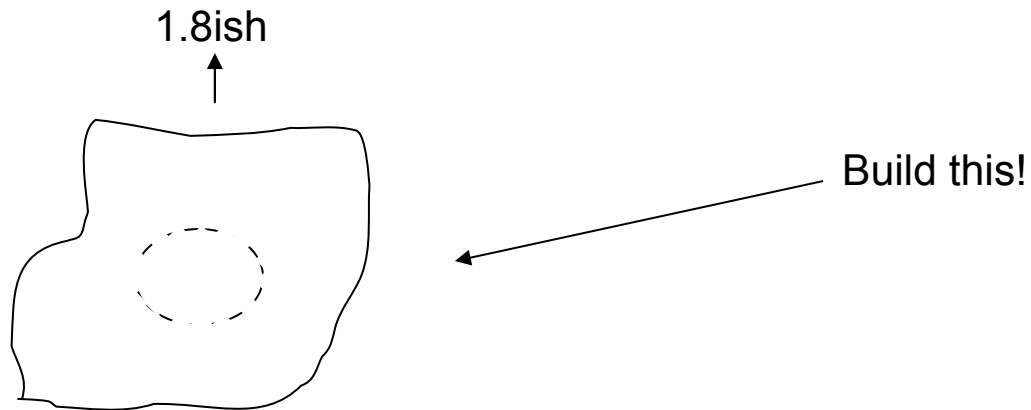


# Measuring with a Ruler!!!

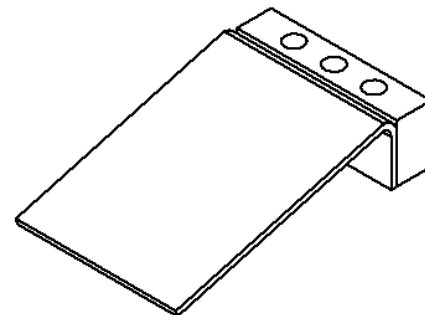
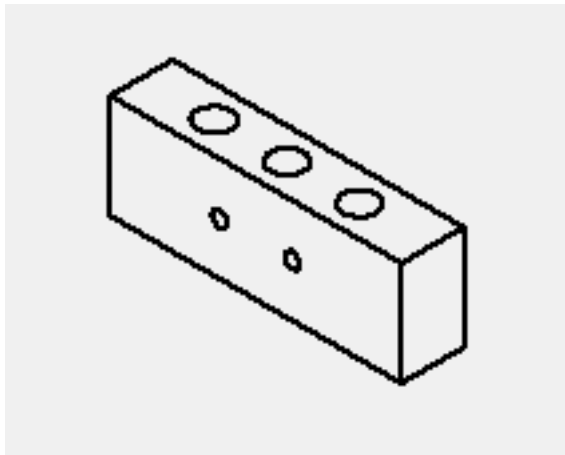
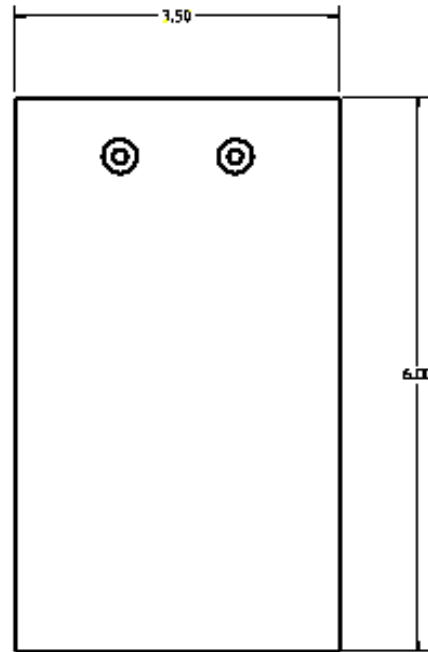
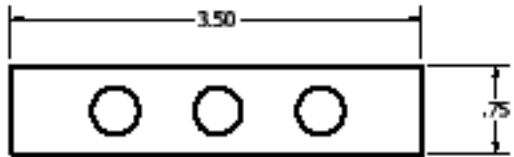
A super-important engineering skill!!

# Why Do We Measure?

- So we can make stuff!
  - Clearly define aspects of engineered items
  - Conform to standards
  - *Minimize* confusion



# To make stuff, we need plans:

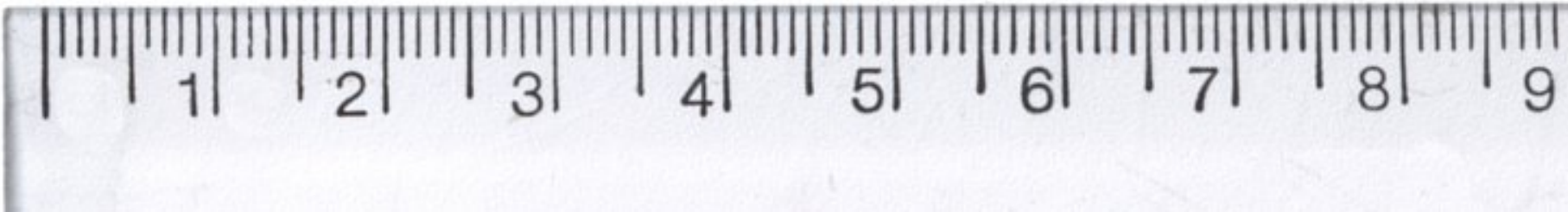


# Two Systems of Measurement:

- Inches, Feet, Yards, Miles, Pounds, Etc.
- Meters, Kilometers, centimeters, ounces, etc.

# Metric:

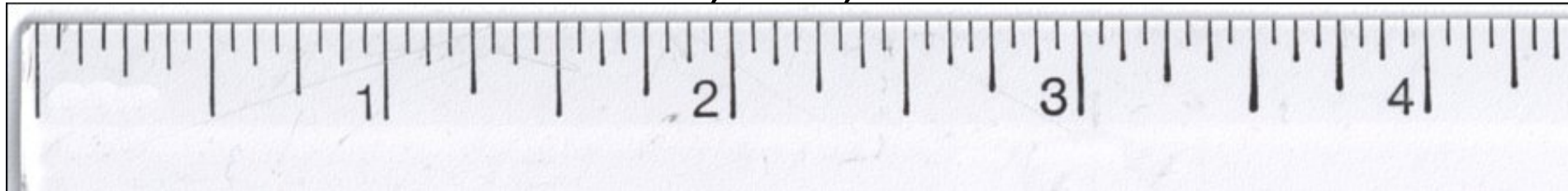
- A metric unit is divided into 10 parts
- Decimals!



- 1.1 cm
- 2.5 cm
- Etc.

# Standard/Customary/English

- Inches, Feet and so on
- Fractions—usually divided into 16<sup>ths</sup> and simplified!
  - After 16<sup>ths</sup> come 32<sup>nds</sup>, 64<sup>ths</sup>, etc.



- $\frac{1}{16}$  inch
- $\frac{1}{4}$  inch
- Etc.

# English System:

