**Requirements for Testing**

Timeline of progress in stages

* Stage 1: Controlled Evalbot Movement
  + Testing: run across full length desk in Eaton 2002
    - Count number of times wheel rotates
      * Equation: number wheel rotations multiplied with circumference of wheel
        + N\_t\*C = distance

Distance will be in feet

C = circumference of wheel

N\_t = number of full rotations sensed

* + - * + Count number of times hole on wheel crosses top
        + Calculate and display the distance traveled by evalbot
    - Record successful distance traveled in small increments
* Stage 2: Temperature Interface
  + Testing temperature sensor
    - For accuracy and precision
      * Comparison against another thermometer (Prof. Minden’s)
        + Draw temperature between +/- 10 degrees
        + Determine percentage of error
        + Precision of thermometer should be within 1/10th of threshold temp.
  + Number of samples we will collect
    - Do 10 samples for each surface type:
      * Wood
      * Tile
      * Metal
      * Carpet
    - Build the program for reading, processing and displaying the temperature
      * Task1: Reading
      * Task2:Processing
      * Task3: Displaying
* Stage 3: Integration of Stage 1 and Stage 2
  + Testing
    - Take temperature every few feet
    - Run testing procedures from stage 1 and 2 to ensure success
    - Display of both readings for distance and temperature