**CS 115 - Lecture #3 Notes**

* Map #1
  + # 0 x\*W\* -> E 2
  + # Stepwise Refinement Process
  + # Goal: Covering an entire room (empty room)
  + # NB: No matter where you are starting
  + # (I): Go to the NW corner
  + # (Ia): Go to the west wall
  + # i.e., go west as long as west is open
  + 0 \*\*X\* -> W 0 # if you apply the same state, the picobot
  + 0 \*\*W\* -> X 1 # breaks the rule into two
  + # (Ib): Go North to the NW
  + # i.e., go north as long as north is open
  + 1 x\*W\* -> N 1 # goes north as you can
  + 1 N\*\*\* -> X 2
  + # (II): Repeatedly scan each line eastward till you can't
  + # (IIa): Go to the East wall
  + # i.e., go east sa far sa it's open
  + 2 \*x\*\* -> E 2
  + 2 \*E\*\* -> X 3
  + # (IIb): Come back on your traces,
  + # i.e., go west as far as you can
  + 3 \*\*x\* -> W 3
  + 3 \*\*W\* -> X 4
  + # (II'): Go south to start the next line
  + 4 \*\*\*x -> S 2
  + 4 xxxS -> X 99