# CS151L Fall 2013
# Week 6: NetLogo Command Cheat Sheet

| Command | Command Description |
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| **reset-ticks** | Resets the tick counter.  Put in the Setup Procedure after clear-all |
| **tick** | Increments the tick counter for the program (for use in update view).  Put in the go procedure |
| **globals** [*variable_names*] | A keyword that can only be used at the beginning of a program, before any functions or procedures. It defines new global variables. Global variables are "global" because they are accessible by all agents and can be used anywhere in a model.  Most often, globals is used to define variables or constants that need to be used in many parts of the program.<br>Example:  **globals [NumTurtles ColorTurtles]**  ;; declares two global variables NumTurtles and ColorTurtles. |
| **turtles-own** [*variable_names*] | A keyword that can only be used at the beginning of a program, before any functions or procedures. It defines new turtle variables unique to each turtle<br>Example: **turtles-own [eyes legs]** ;; declares two turtle variables eyes and legs. |
| **patches-own** [*variable_names*] | A keyword that can only be used at the beginning of a program, before any functions or procedures. It defines new patch variables unique to each patch<br>Example: **patches-own [patchColor]** ;; declares one patch variable patchColor. |
| **links-own** [*variable_namse*] | A keyword that can only be used at the beginning of a program, before any functions or procedures. It defines new link variables unique to each link<br>Example: **links-own [traffic];;** declares one link variable traffic. |
| [*reporter*] **of** *agent* | Reports the value of the reporter for that agent (turtle or patch)<br>Example**: show [pxcor] of patch 3 5**  ;; prints 3 |

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| **neighbors** | Reports an agentset containing the 8 surrounding patches (neighbors). <br> Example: **show count turtles-on neighbors**   ;;prints the total number of turtles on the eight patches around this turtle or patch <br> Example:  **ask neighbors [ set pcolor red ]** ;; turns the eight neighboring patches red |
| **scale-color** *color number range1 range2* | Reports a shade of *color* proportional to the value of *number*. <br> • Typically *number* is an agent variable, but may be any numeric reporter. <br> • If *range1* is less than *range2*, then the larger the number, the lighter the shade of *color*. But if *range2* is less than *range1*, the color scaling is inverted. <br> • If *number* is less than *range1*, then the darkest shade of *color* is chosen. <br> • If *number* is greater than *range2*, then the lightest shade of *color* is chosen. <br> • Note: for *color* shade is irrelevant, e.g. green and green + 2 are equivalent, and the same spectrum of colors will be used. <br> Example: **set pcolor scale-color green bugs 0 maxBugsPerPatch** <br> ;; sets the patch color to a green color that ranges from 0 to the value of maxBugsPerPatch that is proportional to how many bugs are on the patch. |