## Module 3 Netlogo Code Cheat Sheet

<table>
<thead>
<tr>
<th>Command / Variable</th>
<th>Description</th>
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<tbody>
<tr>
<td>reset-ticks</td>
<td>Resets the tick counter to zero. Usually goes at the end of a setup procedure, and must come after <code>clear-all</code>.</td>
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<tr>
<td>tick</td>
<td>Advances the tick counter by one. If the tick counter has not been started yet with <code>reset-ticks</code>, an error results. Normally goes at the end of a <code>go</code> procedure.</td>
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<tr>
<td>ticks</td>
<td>Reports the current value of the tick counter. The result is always a positive number.</td>
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</table>
| random #           | If `#` is positive, reports an integer selected uniformly at random from the interval \([0,3)\). If `#` is negative, reports an integer selected uniformly at random from the interval \((-3,0]\). If `#` is zero, the result is always 0.  
**Example:**  
`show random 3` ;; shows 0, 1, or 2 in the Command Center  
`show random -3` ;; shows 0, -1, or -2 in the Command Center |
| set pcolor #       | The command line sets the patch color. Color can be represented either as a NetLogo color (a single number or name) or an RGB color (with separate numerical values for the amount of red, green, and blue).  
**Example:**  
`set pcolor 15` ;; all of these set the color of the patch to red  
`set pcolor red`  
`set pcolor 255 0 0` |
| pxcor, pycor       | Reports the x-coordinate or y-coordinate of a patch  
**Example:**  
`ask patches`  
`[  
  if pycor < -5  
]`
<table>
<thead>
<tr>
<th><strong>set pcolor</strong> blue ;; sets all patches with a y-coordinate less than -5 to blue</th>
</tr>
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</table>
| **max-pxcor**  
**min-pxcor**  
Reports either the **max** or **min** coordinate along the x-axis (horizontal axis) of the NetLogo world. To get the max or min along the y-axis, use **max-pycor** or **min-pycor**. Note that min values are often negative numbers, depending on how the world is set up.  
**Example:**  
create-turtles 1  
[  
  setxy max-pxcor max-pycor ;; creates 1 turtle and places it in the upper right corner  
]  
create-turtles 1  
[  
  setxy min-pxcor max-pycor ;; creates another turtle and places it in the upper left corner  
]  
| **random-pxcor**  
**random-pycor**  
Reports a value selected uniformly at random from the possible x or y coordinates in the NetLogo world.  
**Example:**  
create-turtles 200  
[  
  setxy random-pxcor max-pycor ;; creates 200 turtles and places them randomly  
]  
;; across the top of the NetLogo world