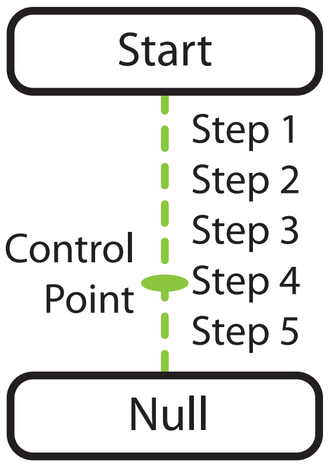
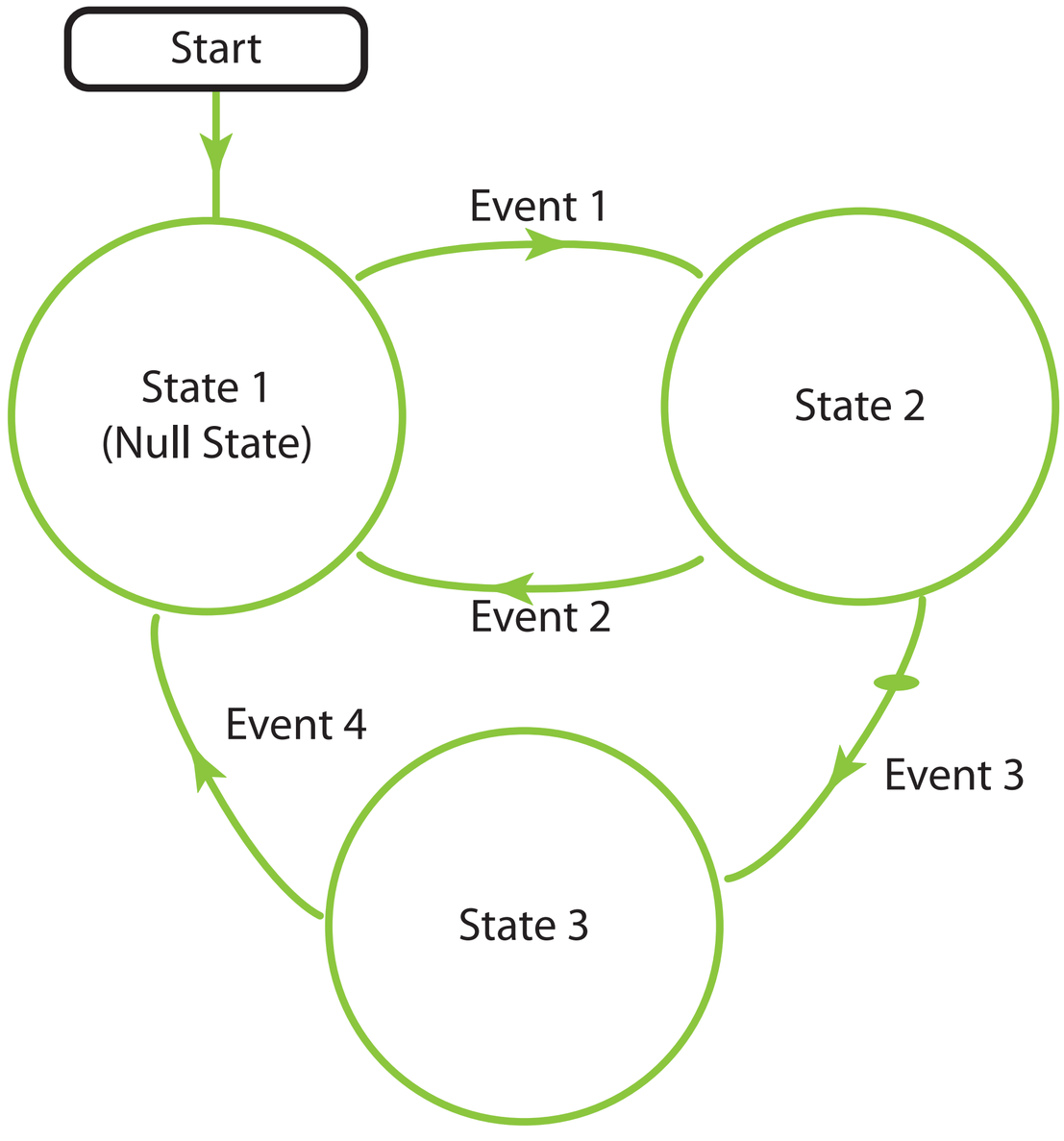
Behavior Models Version 01

Null Behavior:
The null behavior is when the product is not doing anything. Other names for this are idle, standby, etc.



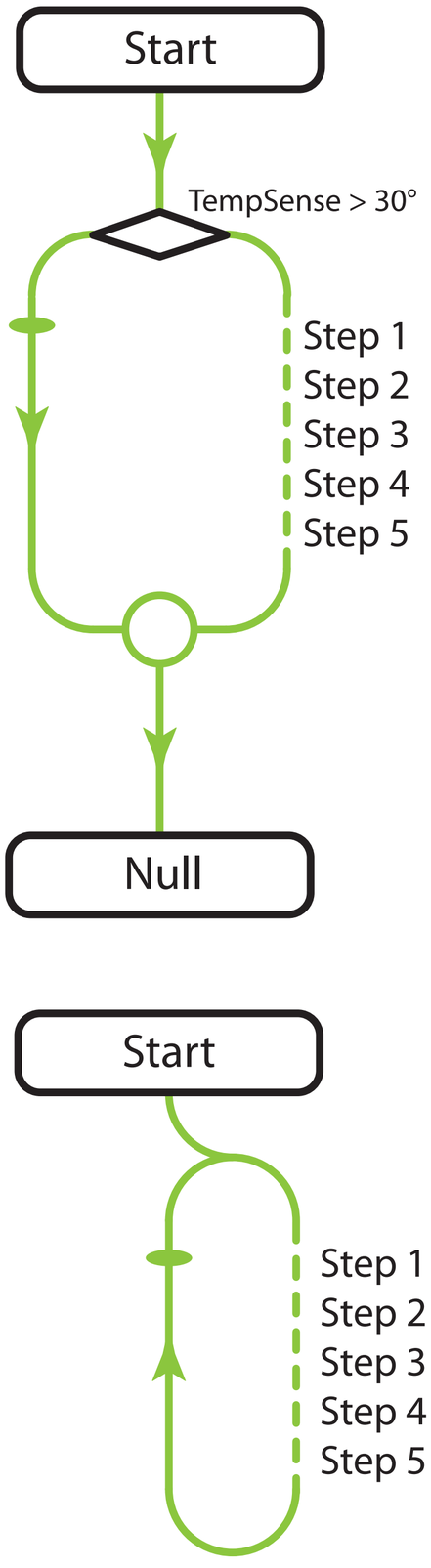
Sequence:
A sequence is initiated by something and then is just a series of steps. The first step happens first then the second step happens. After the the last step is completed the product goes back to the null behavior.



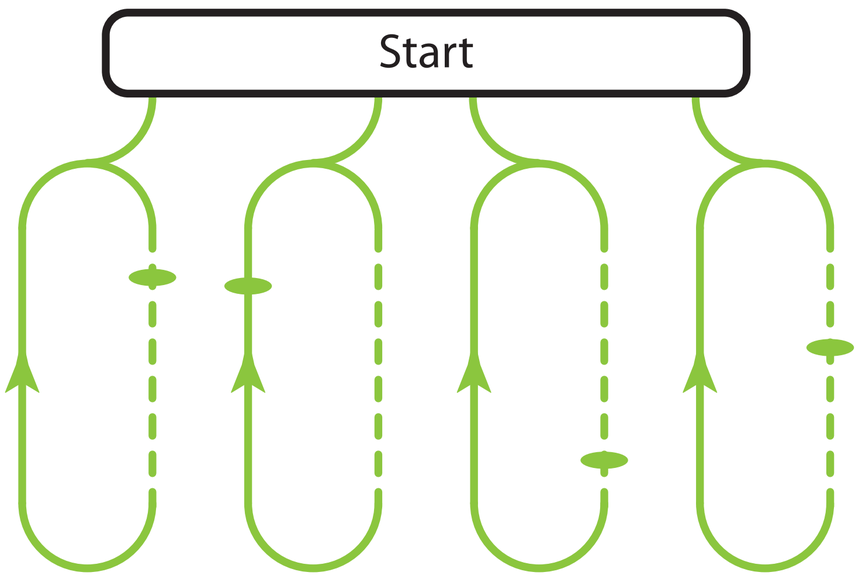
State Machine:
A model that breaks behaviors into to categories.
States: Behavior that is persistent over time. Low Battery, BSOD, and OS Boot are examples of states.

Event: Behaviors that do not persist. Button presses, Threshold tests, alarm clocks triggering are examples of events

The Control Point is shown transistioning form State 2 to State three becuase Event 3 has happened.



Logic Control:
A behavior that is built on top of sequences. Logic control determines when certain sequence are run through or not. IF (shown), AND, OR, WHILE, and FOR are examples of this. In this case the Control Point is skips the sequence becouse TempSense is less that 30°



Multithreading:
This behavior uses multiple infinite loops that operate in parallel.

The power of multithreading comes from the fact that there are multiple Control Points. However, this comes at the cost of greater complexity from concurrency issues.

Infinite Loop:
A behavior where the squence is repeated over and over for all time. The Control Point is show looping back to the beginning of the sequence.

Key

The Control Point - What step in the sequence is being excuted.

Execution - Where behavior happens

Control - Shows the path of the Control Point between sequences

TempSense > 30°

Test - A point where the control path splits depending on some criteria

Null

Source or Sink - Where the behavior starts or end