MECE-301 Engineering Applications Laboratory
Assignment #7

Suppose you were to create a vision system that counted the number of each color of M&M's found in a bag of the candy. The state transition diagram below is to serve as a model for creating a state machine in LabVIEW to process the results. Since you don't really have such a system, a subVI has been provided on the myCourses site that simulates the acquisition process—it simply generates a random sequence of the colors, once every 50 ms. Use this subVI where the diagram calls for "acquire counts." Also, a protected version of the solution has been provided on the myCourses site, so that you may experiment with the results in order to better understand what the diagram is asking for. Please note the following:

- You do not need to use the same type of indicators that are used in the solution. You may use whatever you like.
- No matter the display method you use, please note that according to the diagram, it will <u>not</u> update unless the user presses a "display" button that you create. This is not really very useful, and certainly not necessary, but follow it anyway.
- There is no unique transition for the "stop" button; it simply causes a transition to the "display counts" state, which then automatically transitions to the "initialize" state, but from the latter the user can choose to quit the program.