Goal:
Display fundamental understanding of the Behavior and Sensor constructs in Tekkotsu. The behavior will use a variety of sensors and events to help enforce understanding of how Tekkotsu is organized. You will be required to submit source code for the behavior in a .tar file to salkin@cs.albany.edu. Please keep in mind that your coding style counts (i.e. Be sure to comment, indent, etc.).

Detail:
This will be your first non-trivial programming assignment using Tekkotsu. It will consist of a derivation on the WalkForwardAndStop example covered in the lecture. The behavior should act as follows:
• The behavior should start by having AIBO in a waiting state
• Pressing the back button once should cause AIBO to start walking forward
• Picking up AIBO while it's walking should cause all motion to cease
  • Putting it down should resume the walk
• Any detected obstacle in the path of AIBO should cause all motion to cease
  • Removal of the obstacle should resume the walk
• Pressing the back button while AIBO is walking should cause all motion to cease
  • Pressing the back button again should resume the walk

Hints:
• If you haven't done so already, make a personal copy of a Tekkotsu project to begin working with. (Hopefully you did this last week).
• Verify that you can compile and run the default project (also from last week).
• As above, you will be extending the WalkForwardAndStop example from class. The source for this is available (and should be used) from the class website.
• Add a copy of the example behavior to your project, and verify that it can be compiled and run.
• For the back button requirements, remember that button pushes are events, and are trapped and identified much like sensor events. Register for buttonEGID to detect the event, and verify the source of the ID through the getSourceID method.
  • Note: The back button registers a push both on the way down and up, so you'll need to filter that “up” push.
• Although we haven't done anything with motion yet, the example from class implements all you need in terms of walking and stopping. We're just adding a little more logic to it.
• To detect being picked up off the ground, use AIBO's paw switches. The buttons array in WorldState provides easy access to buttons' current values.