Homework #1: Sensors and C++

Design a Windows Phone to fulfill the following specifications. Submit a .zip file of all contents of your repository to the class dropbox.

Your windows phone application will read from the accelerometer and compass to detect when the phone is sitting flat on the table, pointing roughly north. Note that all sensor measurements will be noisy, so some form of tolerance will be necessary in order to function properly. Once a correct orientation is detected, the user should be notified somehow. The application should support starting/stopping the collection of sensor data. Data collection and processsing should be done in C++, with user interface handed by C#. Do not use the C# Accelerometer and Compass classes. Ensure that your application does not crash when run on the Windows Phone emulator. Ensure that your application either disables display rotation, or acts gracefully when it is rotated.