Course Title: Introduction to Virtual Reality

Course Code: ENSF 545

Lab Number: 3

Instructor Name: Yaoping Hu

Student Names: Jennifer Patterson and James Thorne

Submission Date: October 30 2012

**PART 1: Exercise 1**

**testStereoOmni Filenames:**

./caveMain.cpp

./caveMain.h

./FaceManager.cpp

./FaceManager.h

./HapticManager.cpp

./HapticManager.h

./KNAVETest.ncb

./KNAVETest.plg

./KNAVETest.vcproj

./Makefile

./Makefile.IRIX

./OmniStereoTest.ncb

./OmniStereoTest.sln

./OmniStereoTest.suo

./Release

./Release/BuildLog.htm

./Release/caveMain.obj

./Release/FaceManager.obj

./Release/HapticManager.obj

./Release/mt.dep

./Release/testStereoOmni.exe

./Release/testStereoOmni.exe.intermediate.manifest

./Release/vc90.idb

**Part 1: Exercise 2**

**Step 7:**

The teapot had resistance when we touched its surface with the haptic device cursor. Additionally, the teapot alternated between red and blue each time the haptic device cursor touched it.

**testTeapotOmni Filenames:**

./main.cpp

./Release

./Release/BuildLog.htm

./Release/main.obj

./Release/mt.dep

./Release/testTeapotOmni.exe

./Release/testTeapotOmni.exe.intermediate.manifest

./Release/testTeapotOmni.pdb

./Release/Timer.obj

./Release/vc90.idb

./Release/vc90.pdb

./teapot.h

./teapotLab.ncb

./teapotLab.sln

./teapotLab.suo

./teapotLab.vcproj

./teapotLab.vcproj.UC\_CAMPUS.jdthorne.user

./teapotLab.vcproj.UC\_CAMPUS.jolin.user

./Timer.cxx

./Timer.h

./UpgradeLog.XML

./VTune

./VTune/teapotLab.vpj

./VTune/teapotLab.vws

**Part 2: Exercise 3**

**Filenames In TestStereoOmni:**

./caveMain.cpp

./caveMain.h

./FaceManager.cpp

./FaceManager.h

./HapticManager.cpp

./HapticManager.h

./KNAVETest.ncb

./KNAVETest.plg

./KNAVETest.vcproj

./KNAVETest.vcproj.UC\_CAMPUS.jdthorne.user

./Makefile

./Makefile.IRIX

./OmniStereoTest.ncb

./OmniStereoTest.sln

./OmniStereoTest.suo

./Release

./Release/BuildLog.htm

./Release/caveMain.obj

./Release/FaceManager.obj

./Release/HapticManager.obj

./Release/mt.dep

./Release/testStereoOmni.exe

./Release/testStereoOmni.exe.intermediate.manifest

./Release/vc90.idb

**Filenames in TestTeapotOmni:**

./main.cpp

./Release

./Release/BuildLog.htm

./Release/main.obj

./Release/mt.dep

./Release/testTeapotOmni.exe

./Release/testTeapotOmni.exe.intermediate.manifest

./Release/testTeapotOmni.pdb

./Release/Timer.obj

./Release/vc90.idb

./Release/vc90.pdb

./teapot.h

./teapotLab.ncb

./teapotLab.sln

./teapotLab.suo

./teapotLab.vcproj

./teapotLab.vcproj.UC\_CAMPUS.jdthorne.user

./teapotLab.vcproj.UC\_CAMPUS.jolin.user

./Timer.cxx

./Timer.h

./UpgradeLog.XML

./VTune

./VTune/teapotLab.vpj

./VTune/teapotLab.vws

**STEP 8:**

1. Haptic feedback related code:

Defines: HAPTIC

Variables: ghHD, ghHLRC, gTeapotShapeID, gCursorScale, gCursorDisplayList,

Functions: exitHandler(), initHL(), drawSceneHaptics(), drawHapticCursor(), updateWorkspace(), touchShapeCallback(),

2. Initializing function for haptics: initHL().