3D Web Usability Test Procedure

New features within the Hyper Text Markup Language (HTML) now allow for more interactivity from users, particularly in regards to 3D models and simulation. This usability test is designed to assess how easily users can manipulate and navigate webpages with these new 3D features, as well as gather user feedback about these new features.

Before beginning this usability test, please verify the following:
1 - You have a three button mouse attached to your computer.
2 - You have the latest version of the Mozilla Firefox web browser installed.
3 - Your headset and screen recording software are working correctly.

Please read the test procedure instructions out loud once the screen recording has begun. In addition, please narrate your thought process for the recording, so that any potential usability problems can be easily identified.

Start the screen recording software now. Open the Firefox web browser, navigate to www.darrenscorner.com/3dusability/ then click on Example 1. Read the directions at the bottom of the page, then use your three button mouse to position, rotate and scale the monkey model so that it roughly matches the orientation shown in Figure 1. Don't worry if it doesn't match exactly, just get it to match as close as possible. Return back to the main page at www.darrenscorner.com/3dusability.

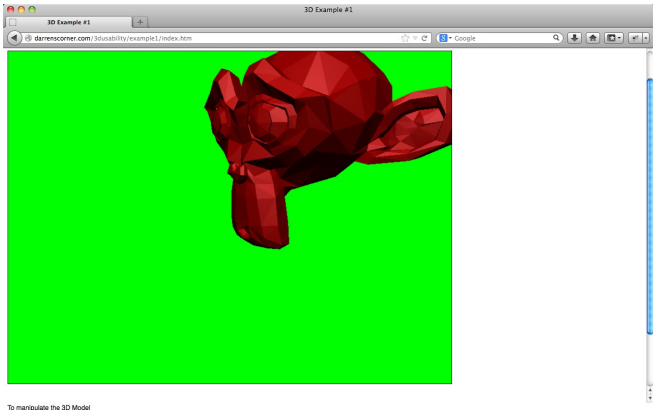
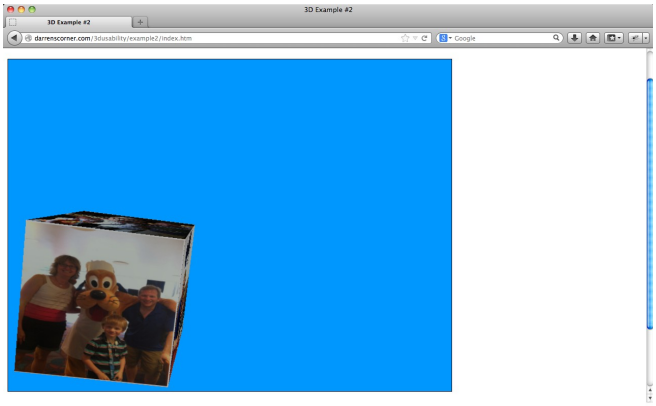


Figure 1



Click on Example 2, then position, rotate and scale the cube to match the orientation shown in Figure 2, using the three mouse button. Again, the orientation doesn't need to be exact, just get it as close as possible. Return back to the main page when you've completed the task.

Figure 2

Click on Example 3, then click and hold the left mouse button over the scene to modify the cameras perspective. Click on the Full Screen Version link, which should create a new tabbed browser window, then use the left mouse button to orbit around the scene and the middle mouse button to zoom in and out of the scene. Manipulate the view to roughly match Figure 3, then close one tabbed view and return to the main page.

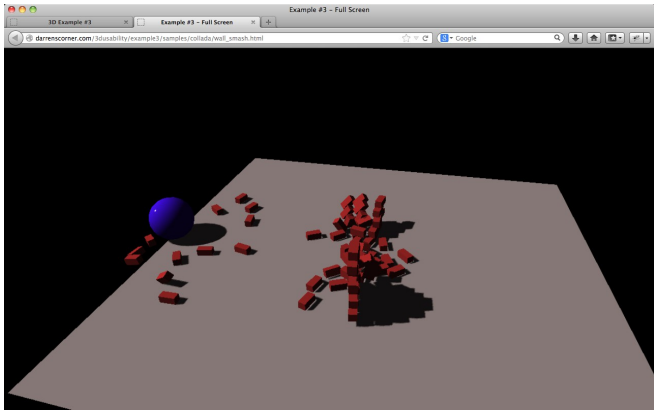


Figure 3

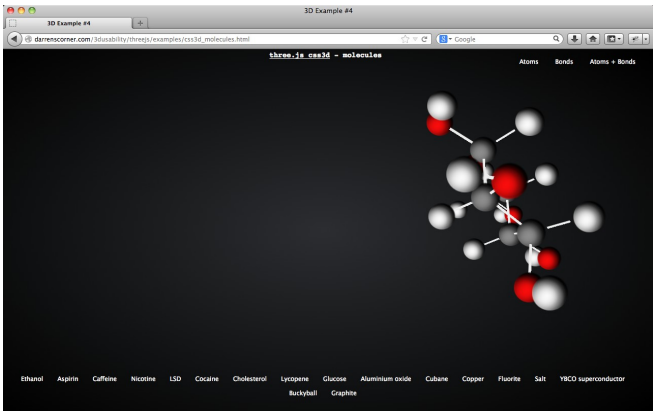


Figure 4

Click on Example 4, then browse the various molecule models presented. Click on the Glucose molecule, then display just the Atoms, then just the Bonds, then both the Atoms and Bonds together by using the options in the upper right corner of the screen. Experiment with all three mouse buttons to match the orientation shown in Figure 4. Use the browsers back button to return to the main page.

Click on Example 5, then browse the table, sphere, helix and grid views for the periodic table displayed. Click on the Helix display mode and use the mouse buttons to manipulate the model to roughly match the orientation shown in Figure 5. Use the browsers back button to return to the main page.

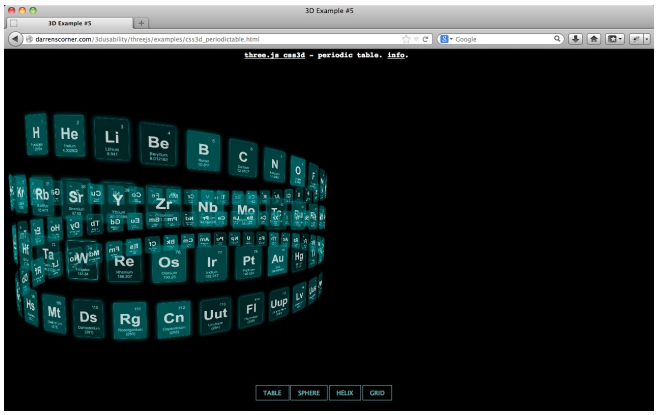
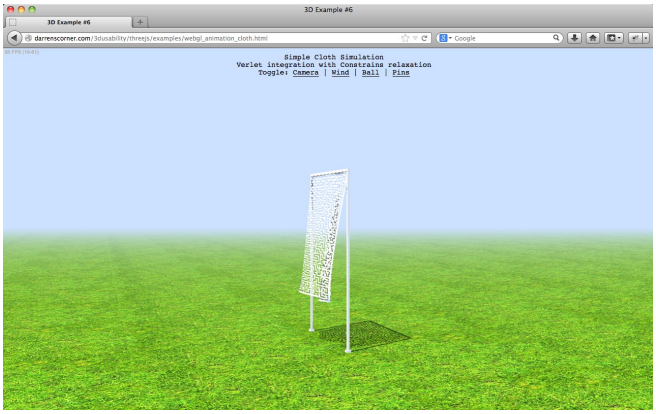


Figure 5



Click on Example 6 and observe the cloth simulation. Wait until the rotation roughly matches that shown in Figure 6, then click the Camera link to halt the rotation. Toggle the Wind option to off, then toggle the Ball option to on. Turn the Win option back on and view the results. Note how the Pins option affects the cloth. Use the browsers back button to return to the main page.

Figure 6

Click on Example 7, then click on the cube icon at the center of the image. Wait for the model to completely load, then use the three mouse buttons to manipulate the model. Match the orientation shown in Figure 7, then use the browsers back button to return to the main page. Turn off the screen recording software at this point.

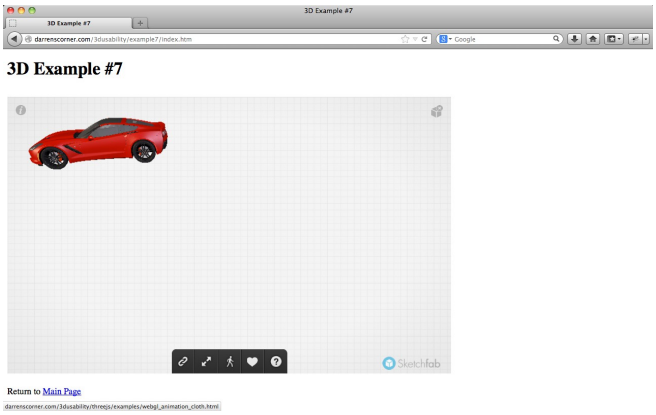


Figure 7

3D Usability Survey

Thank you for taking the time to complete this survey. Feel free to review the seven examples at www.darrenscorner.com/3dusability while answering the following questions.

Name _____

Age and date of Birth _____

On a scale from 1 to 10, with 10 being the highest, please rank yourself in the following areas:

General Computer Knowledge _____

Web Page Usability _____

Web Design Practices _____

Exposure to 3D Computer Modeling _____

3D Video Game Familiarity _____

Usage of Social Networks _____

Ease in Completing Survey Tasks _____

How difficult was it to manipulate the various models displayed in the seven examples given?

_____

_____

_____

_____

Which of the seven exercises was the easiest to complete and which was the hardest? Could the task description have been modified to more easily complete the task or was manipulating the 3D interface the source of the difficulty?

_____

_____

_____

_____

_____

What types of websites do you think would benefit from this type of 3D technology and what types do you think would not?

What are your perceptions regarding how different age groups would approach these exercises? Would you anticipate any differences between individuals in their teens, 20s, 30s, 40s and 50s? Please elaborate.

Additional comments