CART 361: 3D Digital Production I

CLASS 06

Moodle Download: Class_06.zip
Moodle Download: Class_06_videos

TOPICS:

- 1. Hard Surface Modelling
- 2. Introduction to Uvs (basics)
- 3. Launch HardSurface Assignment: Part 1
- 4. Substance Painter exercise (Research, optional)

DEMO:

- 1. Hard Surface modelling tools: Fast Carve Addon, Bevel, Applying Transforms (exercise)
- 2. Brief Introduction to UV layouts (Just some basics. More next week!)

ASSIGNMENT: Part 1:

HardSurface Assignment (5 %)

Due: Tuesday Oct 15 @18h30 (Section BB), Friday Oct 18 @ 8h30 (Section A) HARD DEADLINE!

Study the image in the reference folder and other mechanical parts online for inspiration and ideas. Create 30 similar realistic or imagined mechanical parts (ie: fittings, braces, pistons, clamps, gears, joints, wheels, optics, hydraulics, brackets, panels etc, etc) using the FastCarve Addon boolean, bevel and smoothing techniques covered above. **No subdivision modelling (we are creating fast, very high quality non-deforming models without concerning ourselves with topology and edgeflow)** Each individual asset must have a continuous <u>water-tight</u> topology. Layout the models in a square pattern with equal spacing, then frame with camera (see "Delivery_reference_image") and render a 1920x1080 image using the "**Workbench**" **Render Engine** (see "Workbench_render_settings_A&B" reference image)

Render Specifications are:

- Workbench Render Engine, 1920 x 1080, png
- Background V: 0.1Matcap: Metal lead.exr
- Cavity ON, Type "World", Outline OFF

Criteria:

- the assets are all Hard Surface mechanical parts varied in design, and error free
- the asset are not subdivision surface models. (Did not use subdivision modifier)
- the assets were all completed using the Fast Carve boolean Addon, bevel and shading workflow covered above.
- all the scene layout, camera and render specifications were followed.

Submit: Moodle/ FirstNameLastInitial_Hardsurface_Assets.png

RESEARCH: SUBSTANCE PAINTER (OPTIONAL)

Free Education Software License: https://www.substance3d.com/buy/education

Project Files: Class 06/ Texturing a Robot in SP

Videos: Class 06 Videos

Navigation: Alt RMB (zoom), Alt MMB (pan), Alt LMB (orbit)

If you are interested in the basics of Substance Painter, this fun exercise covers exporting a hard surface model, painting in Substance Painter and rendering in Substance Painters iRay render engine. The final two videos cover exporting the textures back to Blender and rendering in Cycles.

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