

Project: Rube Goldberg Machine (40 points)



Background:

Reuben Lucius Goldberg (Rube Goldberg) (July 4, 1883 – December 7, 1970) Goldberg was a Pulitzer Prize winning cartoonist. Originally intending to pursue a career in engineering with his degree from the University of California Berkeley, he instead when to work for a newspaper in San Francisco. Though only an office boy, he began to submit drawings and cartoons to the editor until he was finally published. Their popularity led to national syndication. Goldberg is best known for his “invention” cartoons, pulling from his education as an engineer. “A Rube Goldberg contraption - an elaborate set of arms, wheels, gears, handles, cups and rods, put in motion by balls, canary cages, pails, boots, bathtubs, paddles and live animals – takes a simple task and makes it extraordinarily complicated.” (<http://www.rubegoldberg.com>)

Assignment:

Using common household items, create your own Rube Goldberg machine in Autodesk Maya. Do not create any object that does not exist (random platforms, robotic arms, etc). Model and texture all objects accurately. You MUST bring in your objects and/or have proper reference images available (all sides with high resolution). A minimum of two of your main objects must be organic or organic-like. Light the scene appropriately. Rig all objects for animation. All animation will be done by hand (no dynamics or scripts). Animate the objects accomplishing a simple task. You must have a minimum of 10 steps. Physically create the machine and record it with a camera in order to see all the correct motion of your objects. You will use this as reference when animating.

Skills Used: Modeling, texturing, lighting, rigging, animation, rendering, compositing, videography.

Due Dates:

Storyboard: **1/20**

Footage: **1/27**

Modeling: **3/2**

Rigging: **3/2**

Texturing (all UV's mapped out and all source images collected/manipulated): **3/30**

Lighting: **4/18**

Animation (playblast): **4/18**

Final Composite: **Finals Day, 4/30 9:30am-11:30am**

Final Pieces:

- *Rube Goldberg Movie*
 - Resolution: *minimum* 1280x720 (HD 720 preset)
 - Length: based on the individual invention and the task to be completed
 - FPS: 24
 - Image Format: PNG
 - Movie Format: Quicktime with H.264 compression
- *Raw Files*
 - Final Maya file
 - Source images and any reference images

Additional References:

There are millions of Rube Goldberg machine examples online. Do a search for inspiration and ideas, but please do not steal anyone else's idea.