PRODUCT SIMULATION - CLOTH

Advanced Level
(Point Value - 1 to 15 points)

Using 3D anmation for product simulation is a growing field. In this example, you'll create a plastic covering used by auto repair shops to protect customers car seats.
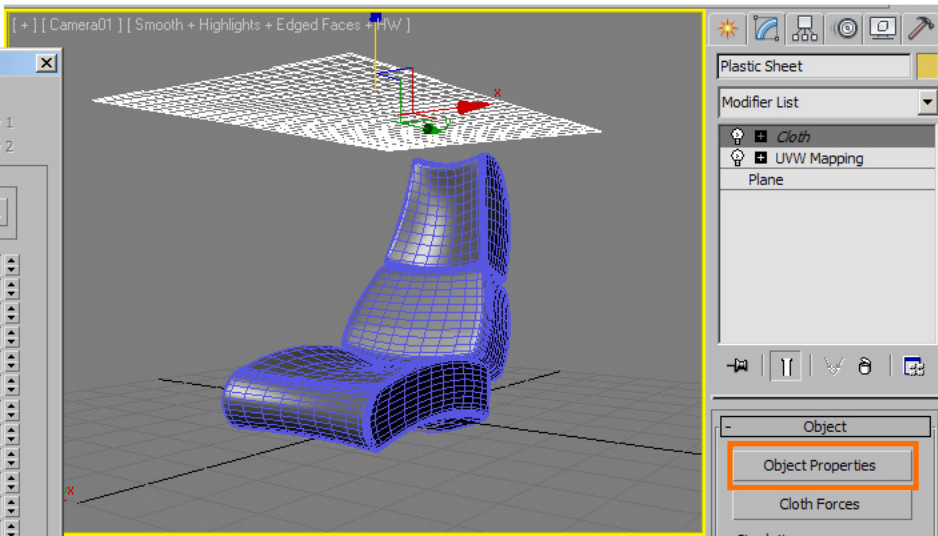
1. First, model a car seat. Name it "Seat"

2. Make a plane 90 units by 50 units with 25 segments by 25 segments. Name it "Plastic Sheet".

3. Place the plane above the car seat.

7. Select the "Plastic Sheet" and click "Cloth"

8. Click "Add Objects" & select "Seat".

9. Set the Seat to be the "Collision Object".

10. Click OK

Object Properties

Objects in Simulation

Add Objects... | Remove

Seat
Plastic Sheet

Inactive
Cloth | Use Panel Properties
Property 1
Property 2

Cloth Properties

Presets
Rubber | Load... | Save...

U Bend 0.0 | Thickness 0.0
V Bend 0.0 | Repulsion 0.0
U B-Curve 0.0 | Air Res. 0.0
V B-Curve 0.0 | Dyn. Fric. 0.0
U Stretch 0.0 | Static 0.0
V Stretch 0.0 | Self Fric. 0.0
U Compress 0.0 | Seam Force 0.0
V Compress 0.0 | U Scale 0.0
Shear 0.0 | V Scale 0.0
Density 0.0 | Depth 0.0
Damping 0.1 | Offset 0.0
Plasticity 0.0 | Cling 1.0
Based on: default | Layer 1

Inherit Velocity | Anisotropic (unlock U,V)
Use Edge Springs | Use Cloth Depth/Offset
Use Collision Obj Friction

Keep Shape

Bend % 100.0 | Stretch % 1.0

Pressure (Inside Enclosed Cloth Volume)

Pressure 0.0 | Track Volume
Damping 0.0 | Cap Holes

Collision Object
Collision Properties
Depth 0.0 | Dyn. Fric. 0.0
Offset 0.0 | Static 0.0
Enable Collisions | Cuts Cloth

OK | Cancel

[+] [Camera01] [Smooth + Highlights + Edged Faces + HW]

Plastic Sheet

Modifier List
Cloth
UVW Mapping
Plane

4. Place a UVW map on the plan3

5. Place the "Cloth" modifier on the plane.

6. Click the "Object Properties" button.

Object
Object Properties
Cloth Forces

Simulation
Simulate Local
Simulate Local (damped)
Simulate | Progress
Simulated | 151
Erase Simulation
Truncate Simulation

Selected Objects Manip
Set Initial State
Reset State
Delete Object Cache
Grab State
Grab Target State
Reset Target State
Use Target State

11. Click the "Simulate" button

Make adjustments to the simulation in the Object Properties box. Try various settings.

Click the "Erase Simulation" button then click the Simulate button.