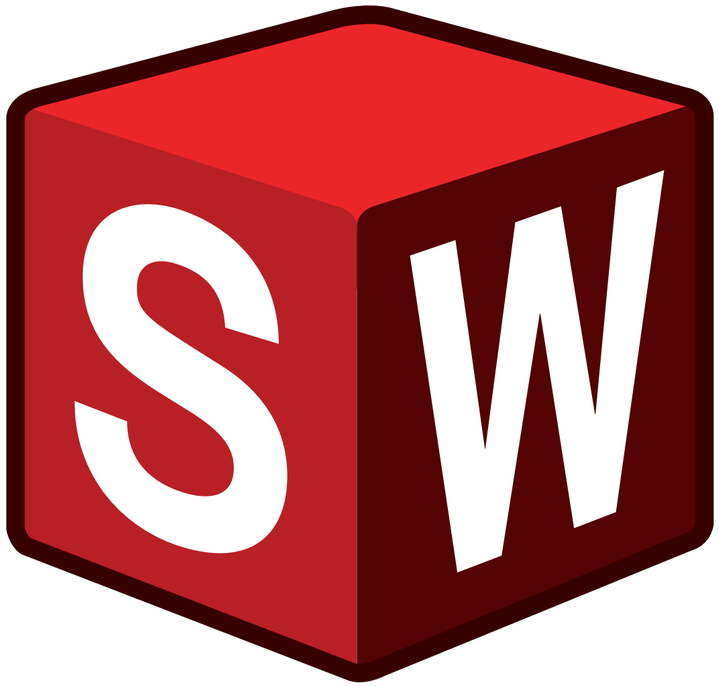
SOLID APPLICATIONS

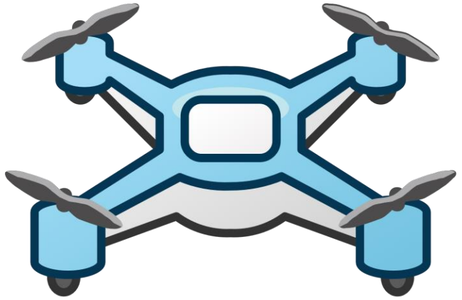
SOLIDWORKS CLOUD SERVICES

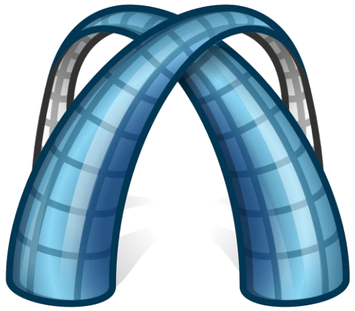
ADAM HOLMES
SIMON DASS
CHRIS HILL

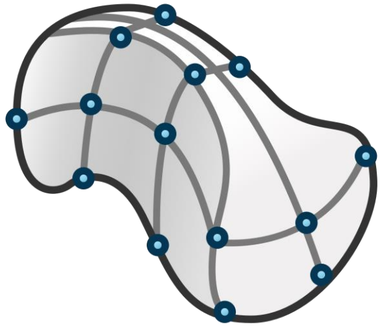
2024

SOLIDWORKS


SW







SW

xShape

Subdivision Modeling

Use freeform sculpting to generate complex shapes and surfaces

Soft Selection

Extend the influence of the manipulator proportionally to sculpt a larger area

Net Surface

Create a subdivision surface from existing sketches or curves

Reflect

Generate an editable, symmetrical copy of your subdivision surface

Subdivision Alignment Tools

Align subdivision entities to each other, or to additional sketches and model geometry

Working Zone

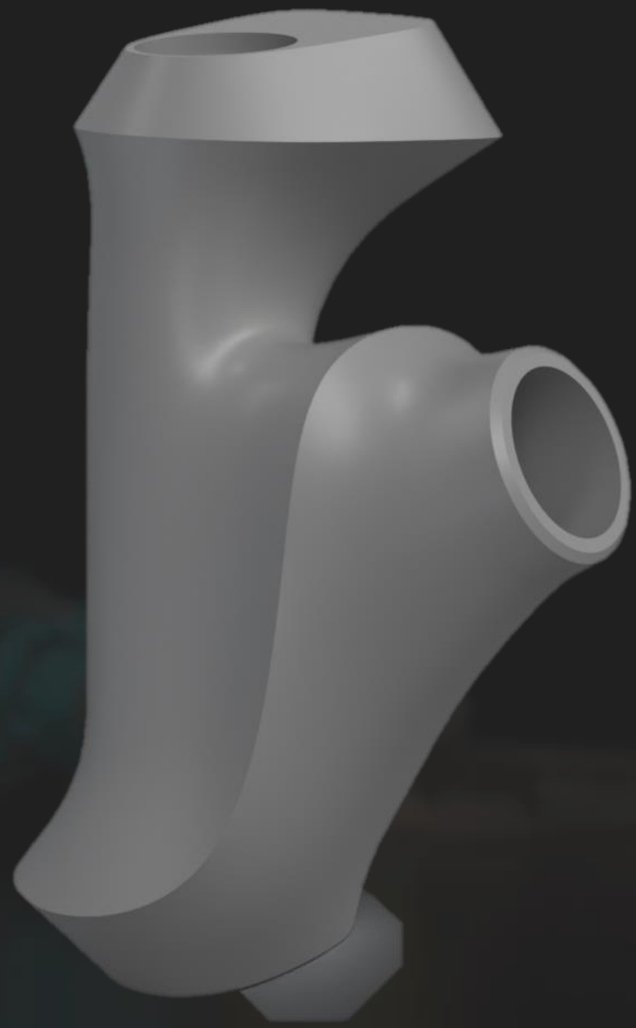
Define the area of the mesh that can be edited in a subdivision surface

Copy & Paste Subdivision

Duplicate a subdivision surface

Advanced Surface Views

Sculpt while viewing the normal surface, the subdivision cage, or from a section view



xDesign

System Status

Ensure a strong server connection

Specify the high performance graphics processing unit (GPU)

Failure Identification

Visual feedback locating failure points of features including thicken, fillet, and chamfer

Print3D

Prepare models for additive manufacturing in a custom, virtual build volume

Support and layer visualization

Smart Mates

Drag and drop components to automatically apply mates

Selective Save

Choose which subassemblies and components to save

Lock Status

Lock models to avoid concurrent changes by multiple users

xGenerative Design

Algorithmic Design

Combine visual scripting and 3D modeling

Voronoi Operator

Partition an existing surface using Voronoi algorithm

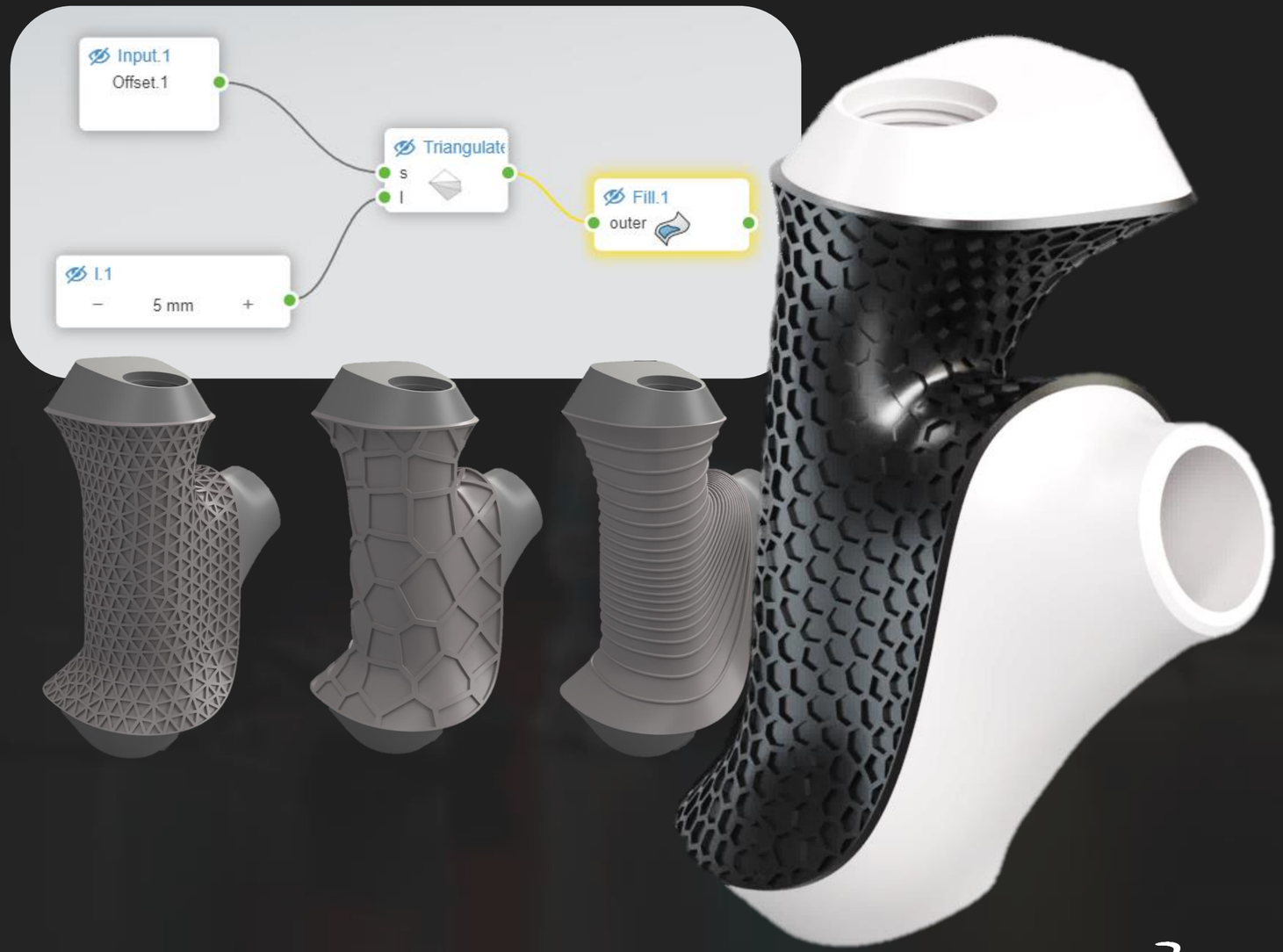
Parametric Operators

Perform algorithmic design with familiar commands such as “thicken”, “add” boolean, “split” and more

Integration with xApps

Switch between design apps like xDesign and xShape to update original geometry

xGenerative patterns will automatically fit to the updated model



Lattice Design

Lattice Design Application

Lightweight components while retaining structural integrity

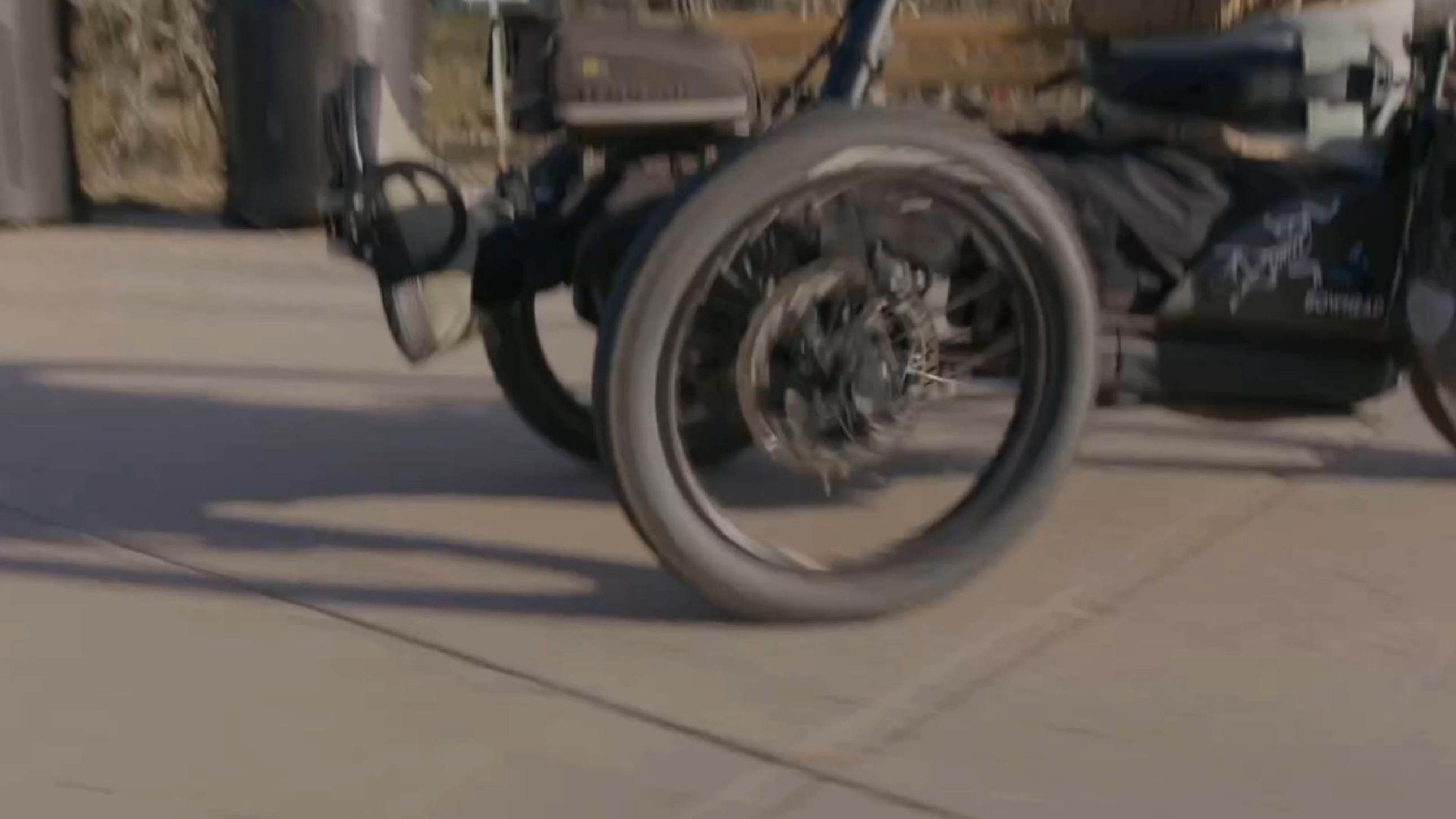
Lattice Design Assistant

Integrated step-by-step guide to select part, cavity, and lattice type

Lattice Structure Options

Create your own or choose from a selection of pre-loaded lattice cell Structure Systems

Lattice cells are editable in size, thickness and orientation



In Work (0)

In Approval (0)

Needed

iority : Medium

ue Date : 8/5/2023

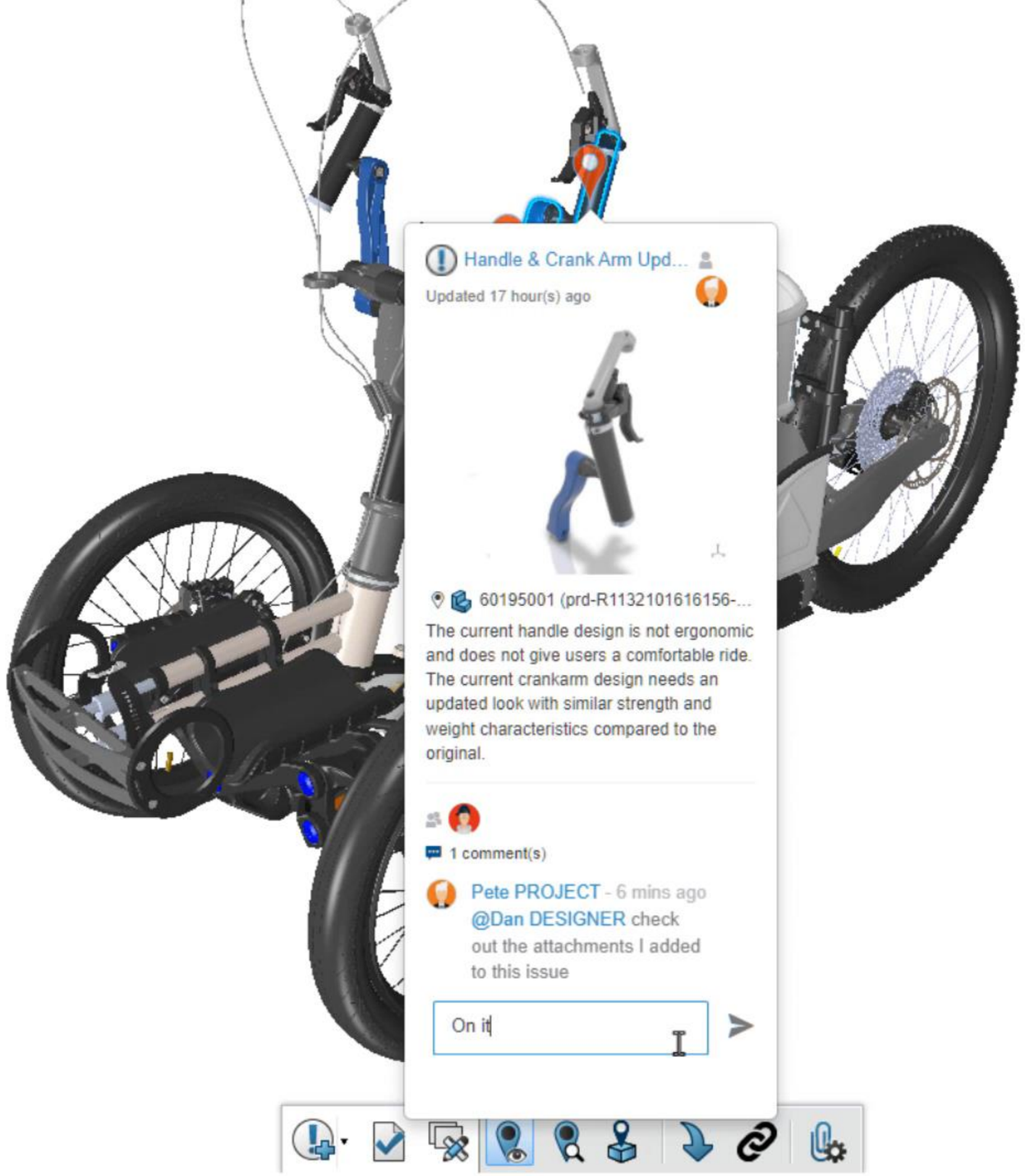
pprovals : OFF

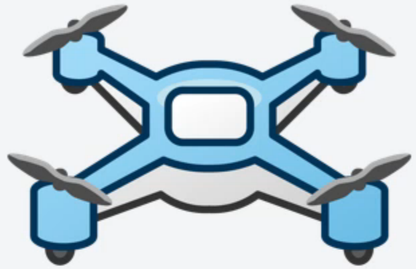
Members (2) Comments (1) Relations History

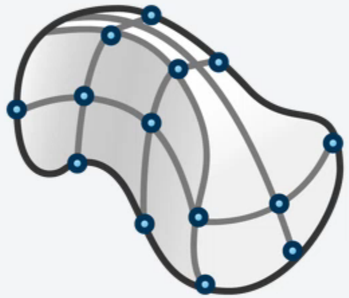
eded

ergonomic and does not give users a comfortable ride. The current crankarm design needs an
and weight characteristics compared to the original.

molding with better ergonomics, using the attached industrial design sketches. We also need a new
nto the handle. Finally, redesign the crankarm based on the comments above. The new crank arm
let's plan to use some lattice structure to minimize weight.







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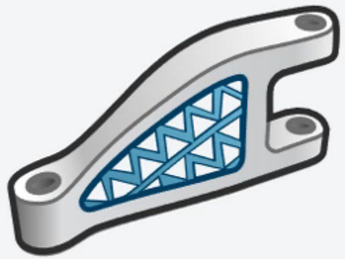

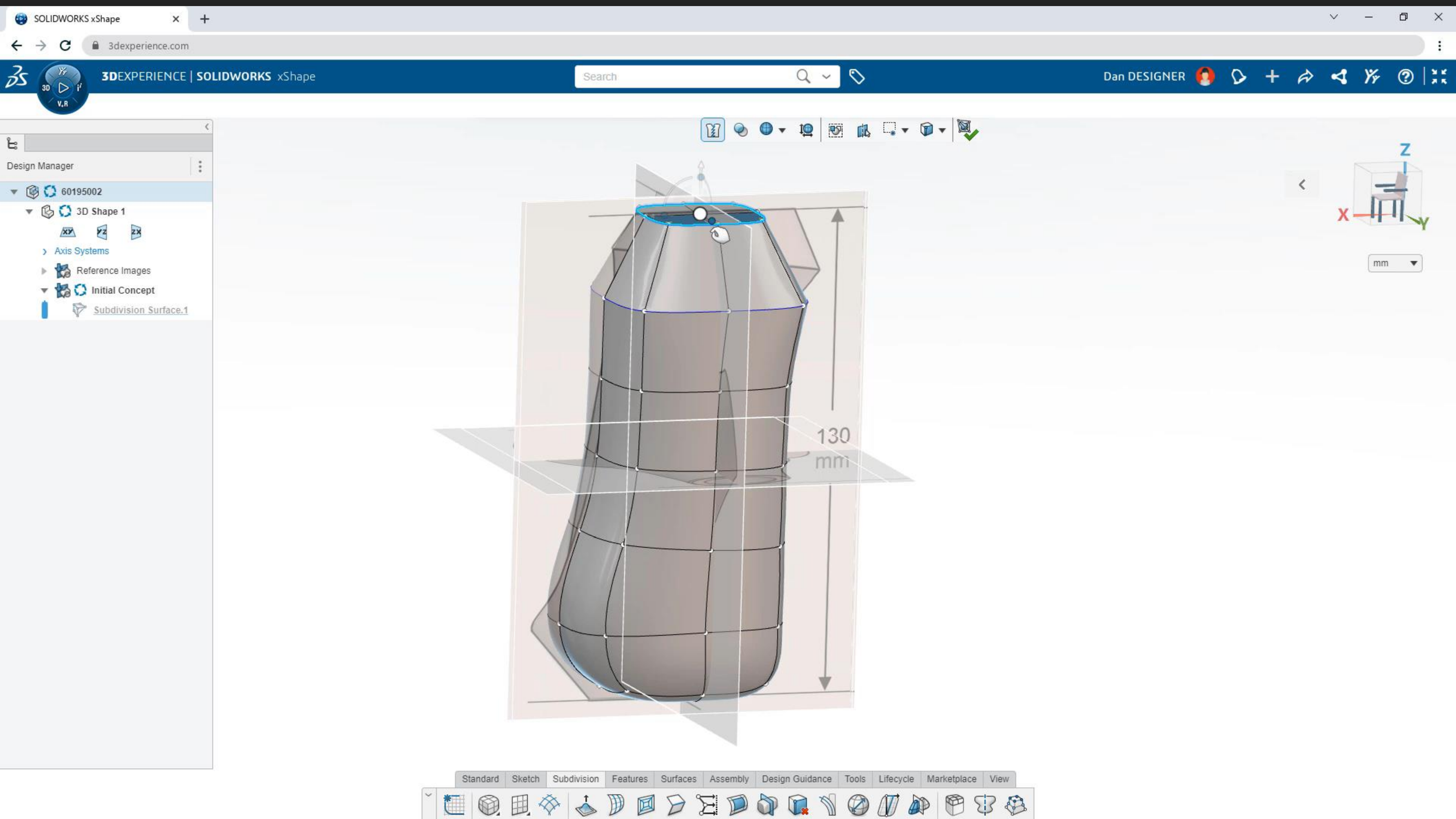
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Search
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60195002
3D Shape 1
Axis Systems
Reference Images
Initial Concept
Subdivision Surface.1
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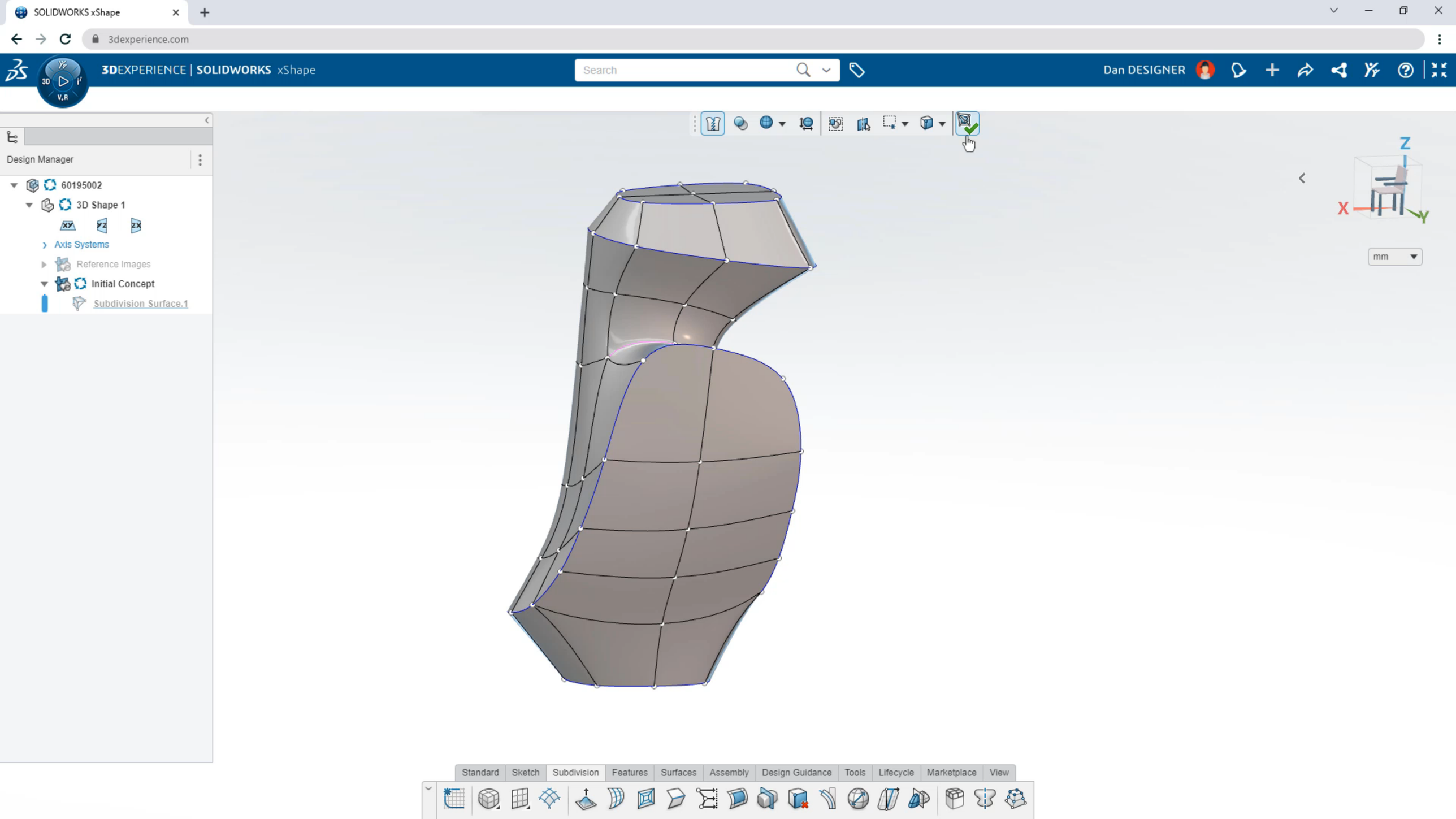
Sketch
Subdivision
Features
Surfaces
Assembly
Design Guidance
Tools
Lifecycle
Marketplace
View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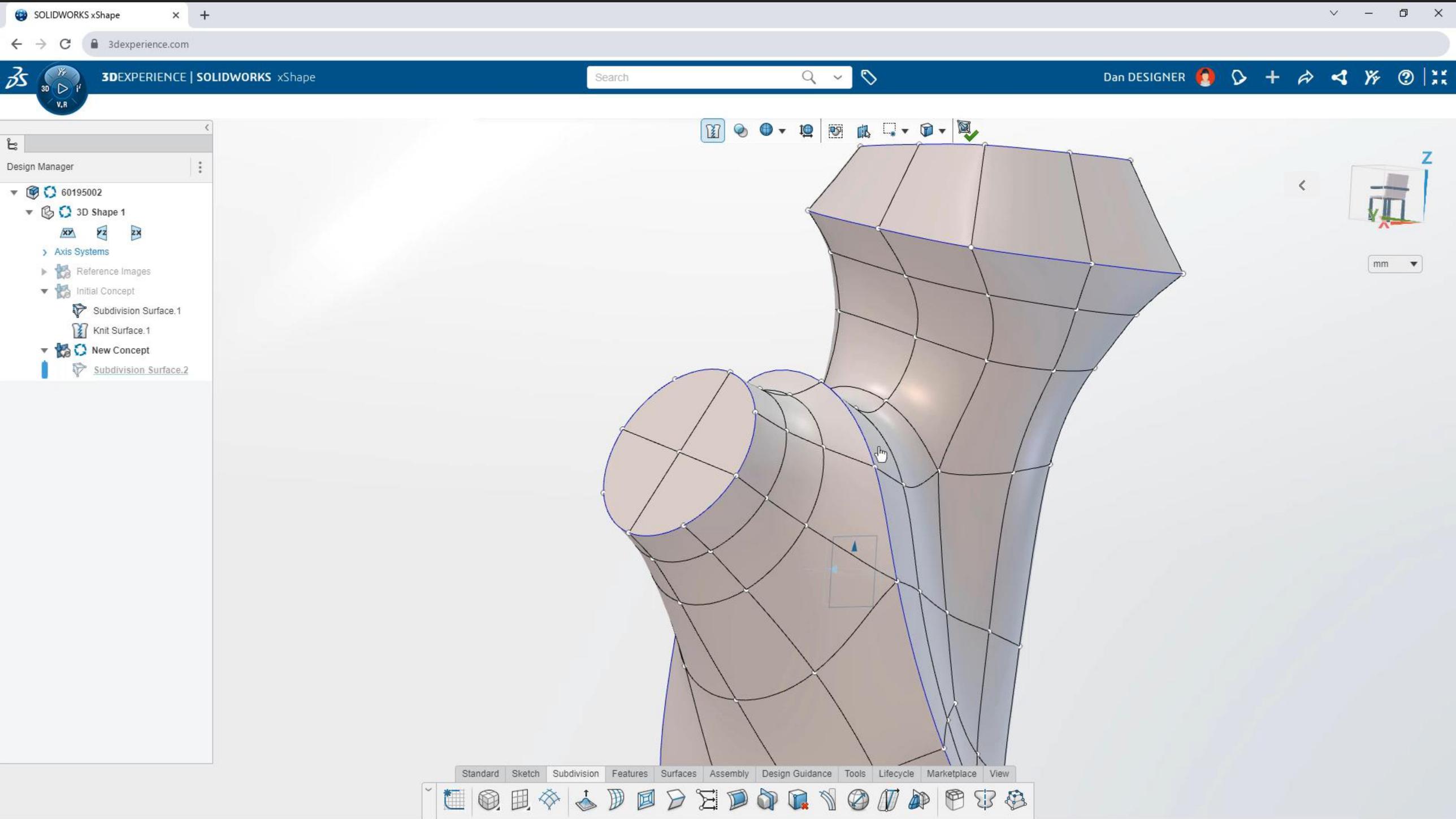
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Knit Surface.1
New Concept
Subdivision Surface.2
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Standard
Sketch
Subdivision
Features
Surfaces
Assembly
Design Guidance
Tools
Lifecycle
Marketplace
View

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- 60195004
  - 3D Shape 1
    - Axis Systems
  - 60195002 (60195002.1)
  - **60195003 (60195003.1)**
    - **3D Shape 1**
      - Axis Systems
      - Grip
        - 60195002
        - Thicken.2

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Standard | Sketch | Subdivision | Features | Surfaces | Assembly | Design Guidance | Tools | Lifecycle | Marketplace | View

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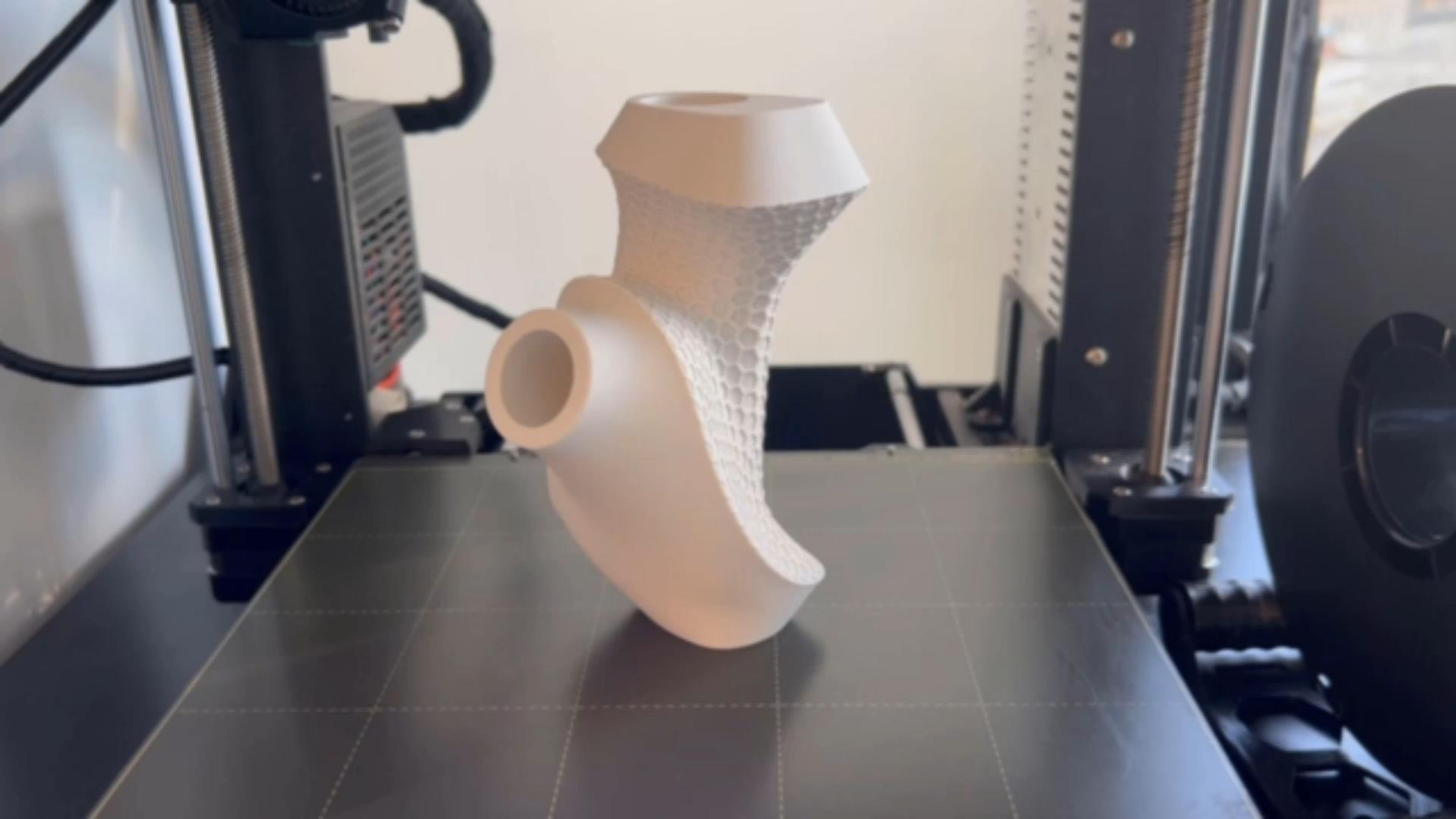
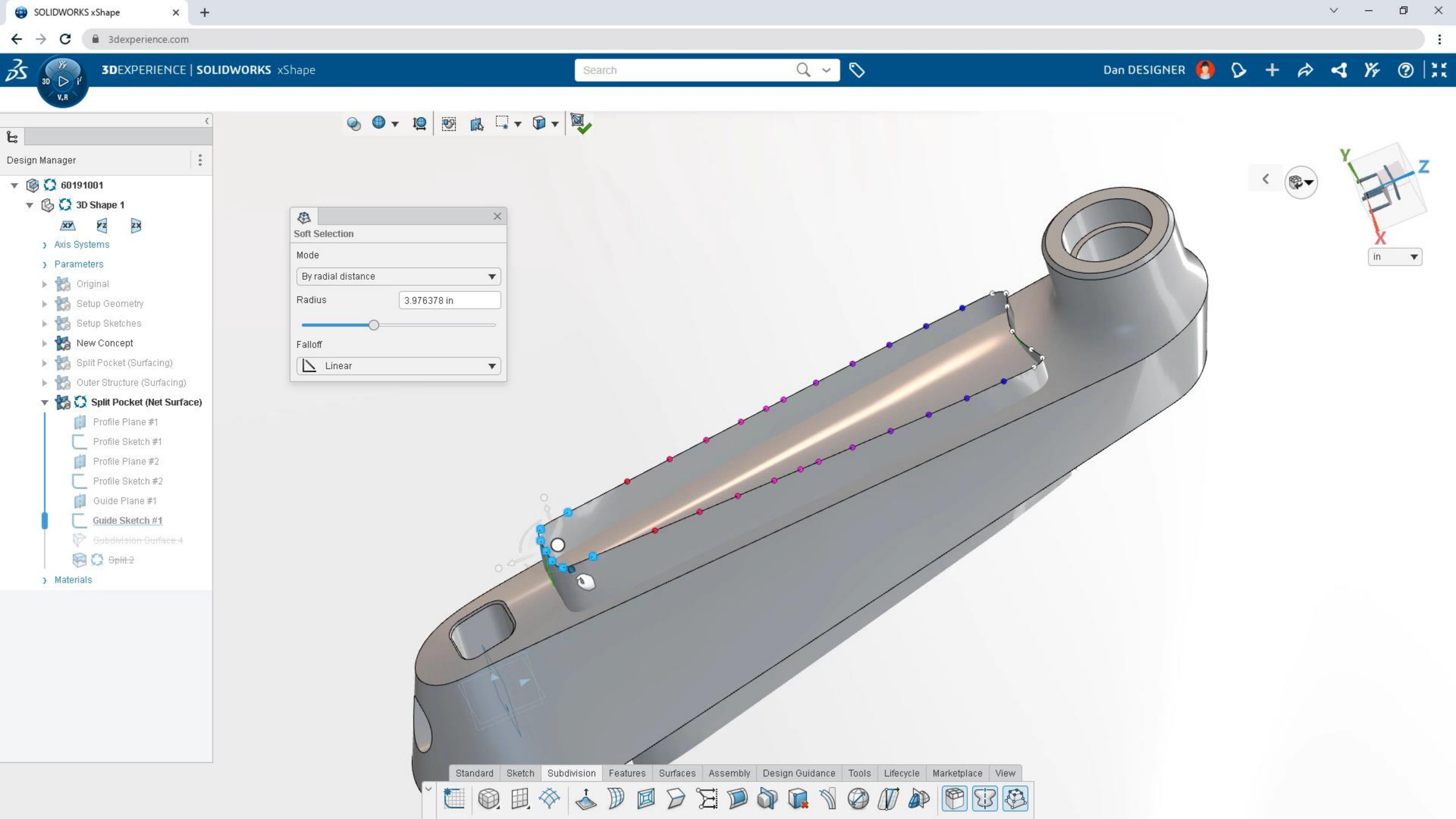
Print 3D

Previews how your model fits in the envelope of a 3D printer.

More Help

Standard | Sketch | Subdivision | Features | Surfaces | Assembly | Design Guidance | Tools | Lifecycle

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60191001
3D Shape 1
Axis Systems
Parameters
Original
Setup Geometry
Setup Sketches
New Concept
Split Pocket (Surfacing)
Outer Structure (Surfacing)
Split Pocket (Net Surface)
Profile Plane #1
Profile Sketch #1
Profile Plane #2
Profile Sketch #2
Guide Plane #1
Guide Sketch #1
Subdivision Surface 4
Split.2
Materials
Soft Selection
Mode
By radial distance
Radius
3.976378 in
Falloff
Linear
Y
Z
X
in
Standard
Sketch
Subdivision
Features
Surfaces
Assembly
Design Guidance
Tools
Lifecycle
Marketplace
View

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  - 3D Shape 1
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  - 60191001 (60191001.2)
  - 60193001 (60193001.1)
  - 60192001 (60192001.1)
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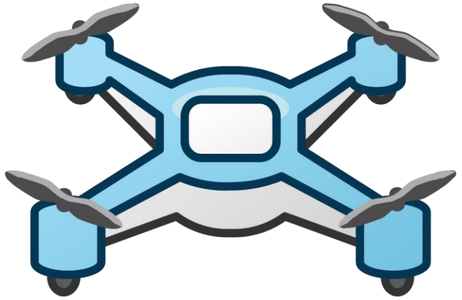
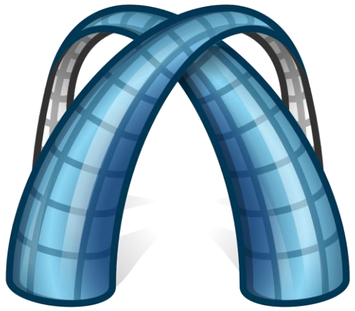
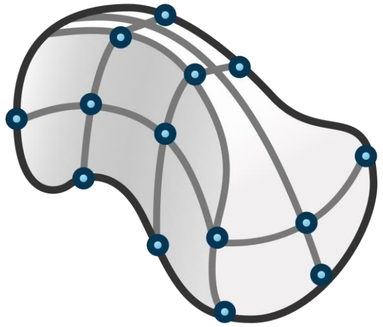
Standard | Sketch | Subdivision | Features | Surfaces | Assembly | Design Guidance | Tools | Lifecycle | Marketplace | View







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