

# Unleashing the Power of Autodesk® Fusion 360™ in Product Design

Alex Lobos

Rochester Institute of Technology  
@LobosDesign

Keqing Song

Autodesk  
@KeqingSong



# Introduction

# Class summary

This class demonstrates the use of Fusion 360 throughout various stages of product design, while taking advantage of the software's intuitive approach and versatile modeling modes.

The class combines quick demos and project examples in areas such as consumer products, lighting, electronics and packaging.

# Key learning objectives

At the end of this class, you will be able to:

- Use Fusion 360 to design for product categories such as electronics, consumer products, packaging, and sports equipment.
- Explain how Fusion 360 accelerates form exploration, early concept development, and final design definition.
- Generate ideas for integrating Fusion 360 with other programs in the Autodesk Product Design Suite.
- Take advantage of cloud-based collaboration by using products in the Autodesk 360 environment.

# Overview of Fusion 360

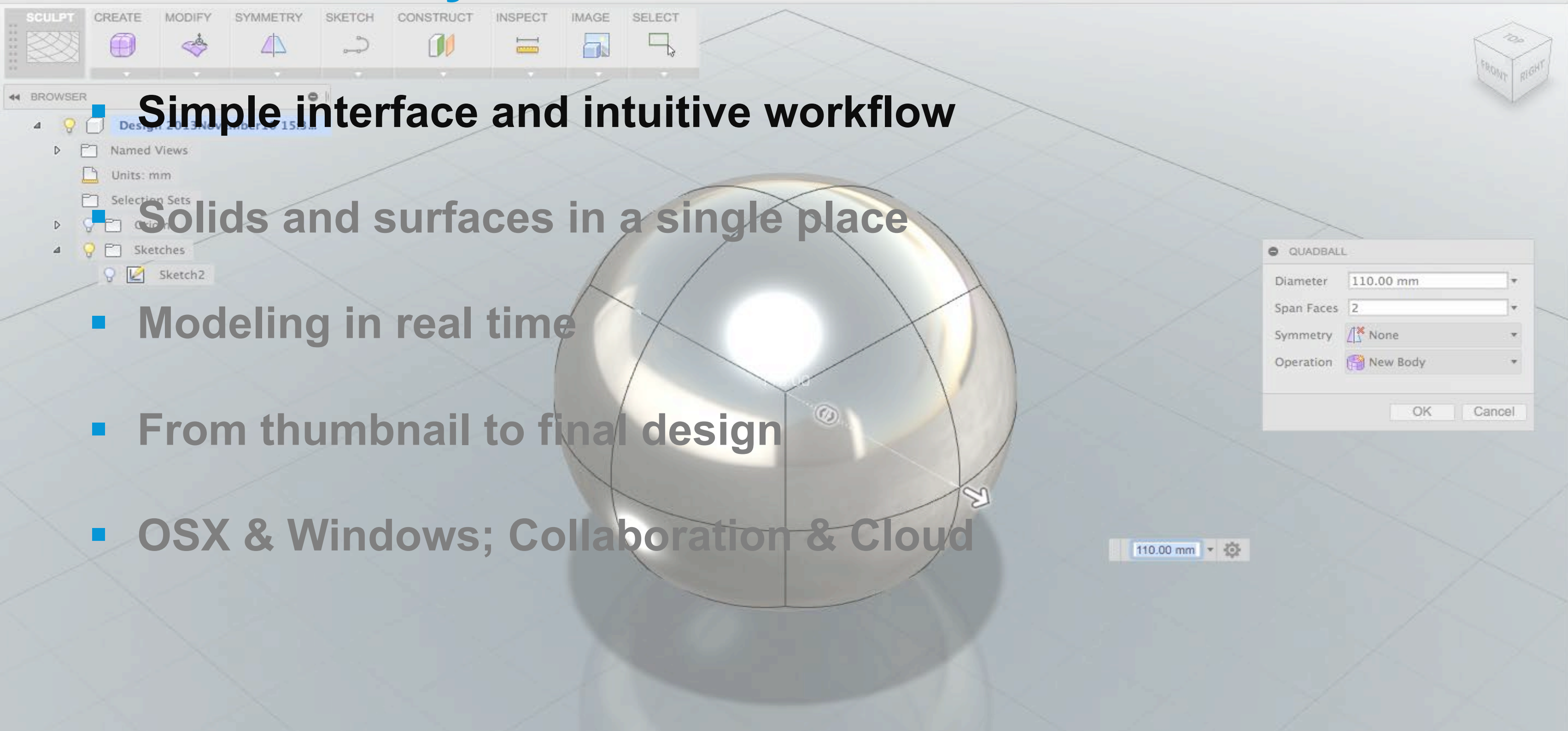


# What is Fusion 360?

Fusion 360 is a 3D CAD software that integrates mechanical and product design into one workflow. By providing both surface and solid modeling in a single environment, it is possible to create designs with a wide variety of modeling styles and levels of definition from initial concept to finalized design.

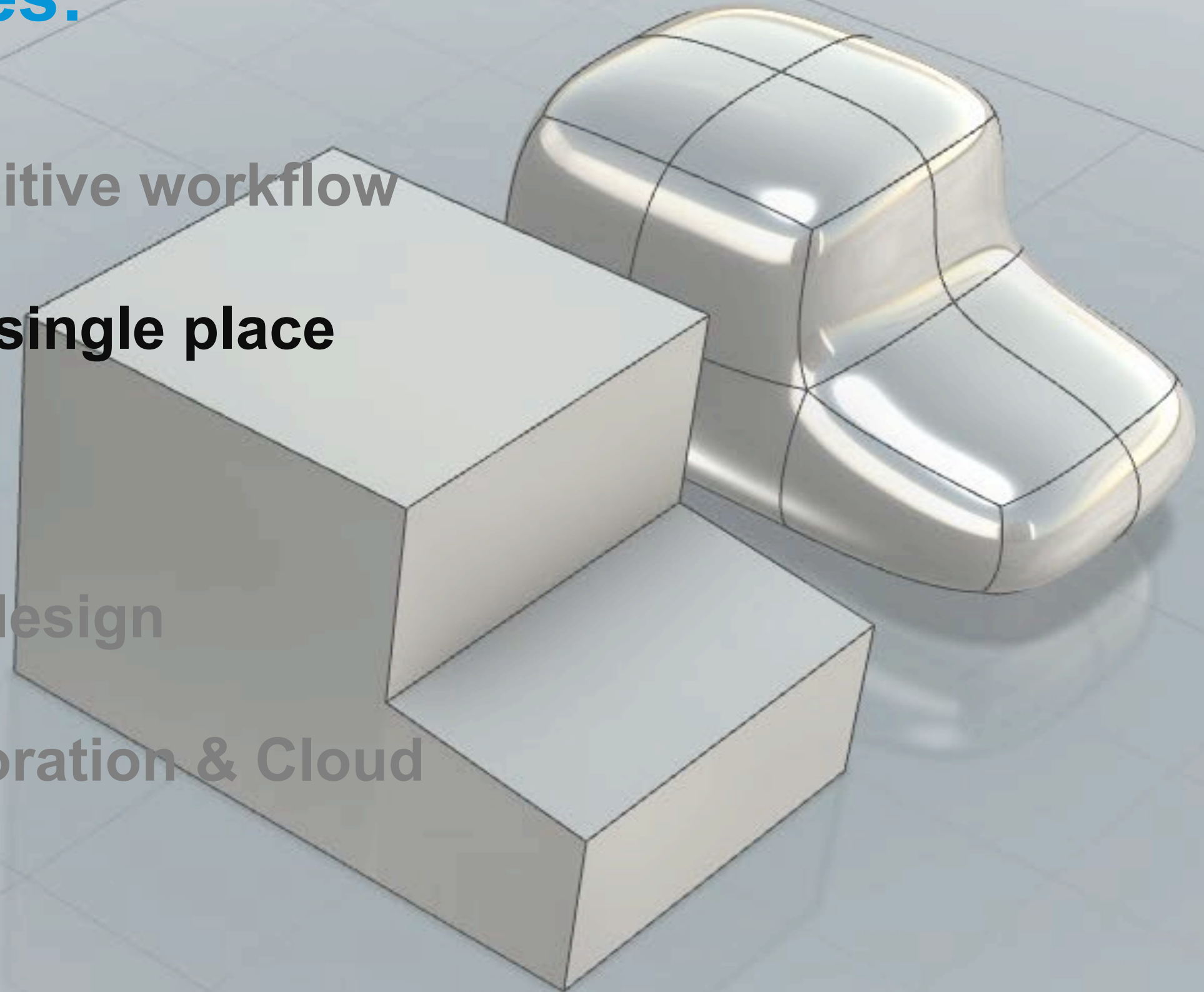
# Fusion 360 key features:

- Simple interface and intuitive workflow
- Solids and surfaces in a single place
- Modeling in real time
- From thumbnail to final design
- OSX & Windows; Collaboration & Cloud



# Fusion 360 key features:

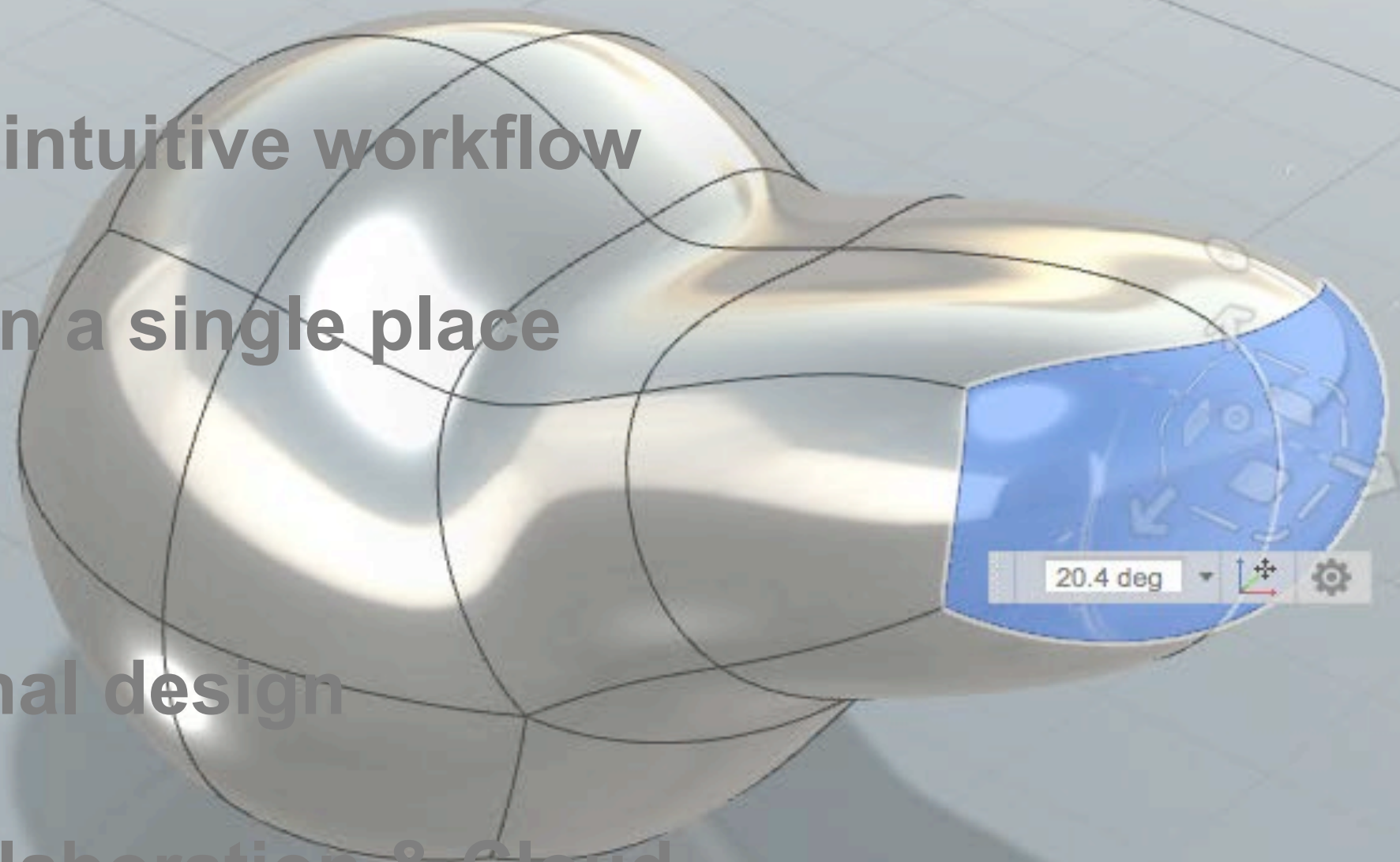
- Simple interface and intuitive workflow
- **Solids and surfaces in a single place**
- Modeling in real time
- From thumbnail to final design
- OSX & Windows; Collaboration & Cloud





# Fusion 360 key features:

- Simple interface and intuitive workflow
- Solids and surfaces in a single place
- **Modeling in real time**
- From thumbnail to final design
- OSX & Windows; Collaboration & Cloud



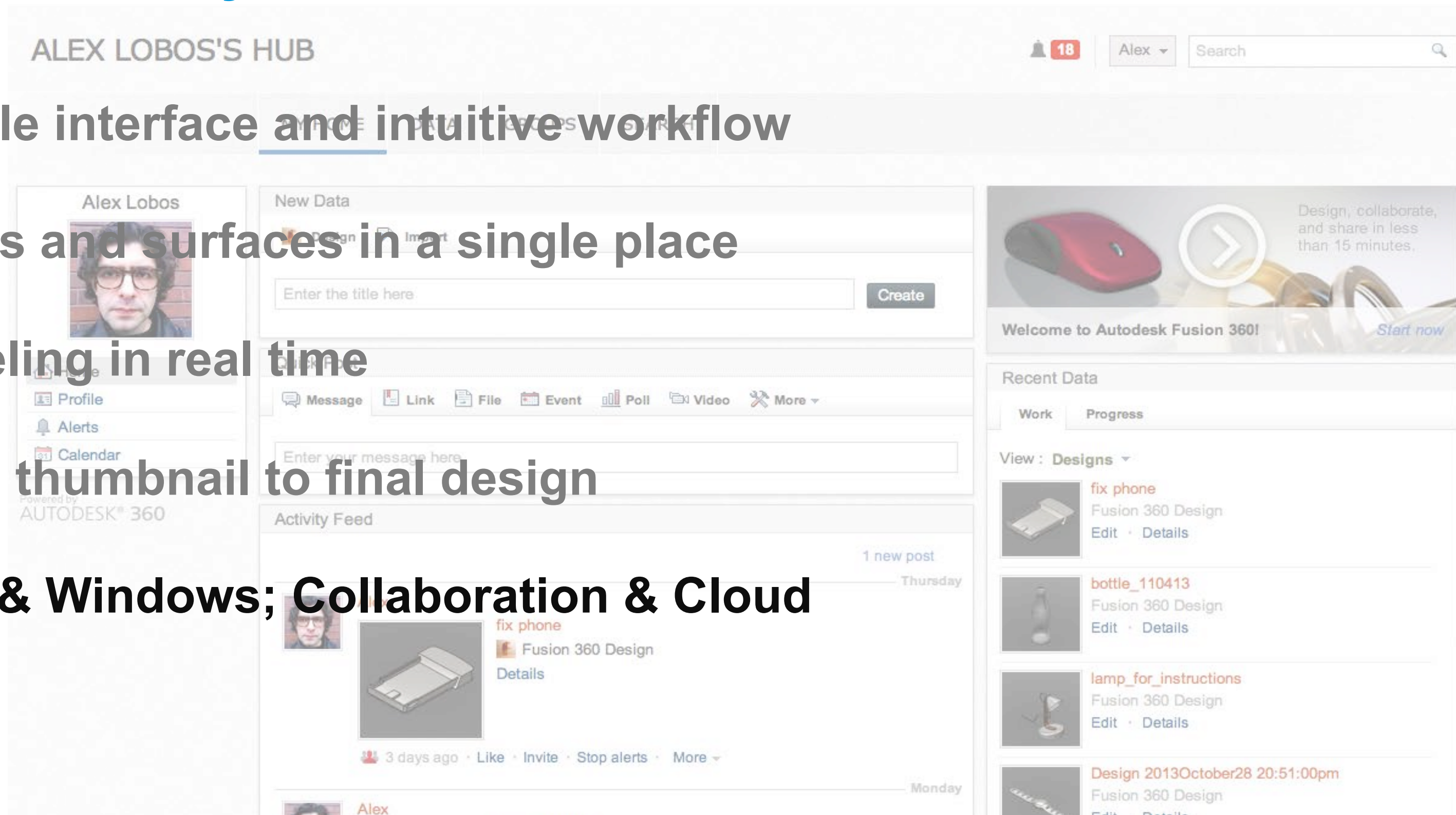


# Fusion 360 key features:

- Simple interface and intuitive workflow
- Solids and surfaces in a single place
- Modeling in context
- **From thumbnail to final design**
- OSX & Windows, Collaboration & Cloud

# Fusion 360 key features:

- Simple interface and intuitive workflow
- Solids and surfaces in a single place
- Modeling in real time
- From thumbnail to final design
- OSX & Windows; Collaboration & Cloud



# Let's get to it!



# Intro: Glass bottle



# Glass bottle

## Key points:

- Keeping geometry as simple as possible
- Maximizing “symmetry” to minimize work
- Benefiting from “splines” and “edit form”
- Maintaining design intent



# Example 1: Wristwatch



# Wristwatch

## Key points:

- Modeling surfaces in Sculpt mode
- Build designs with primitive shapes
- Adding geometry via Edit-Form
- Editing geometry in real time
- Converting surfaces to solids





# Example 2: Desk lamp



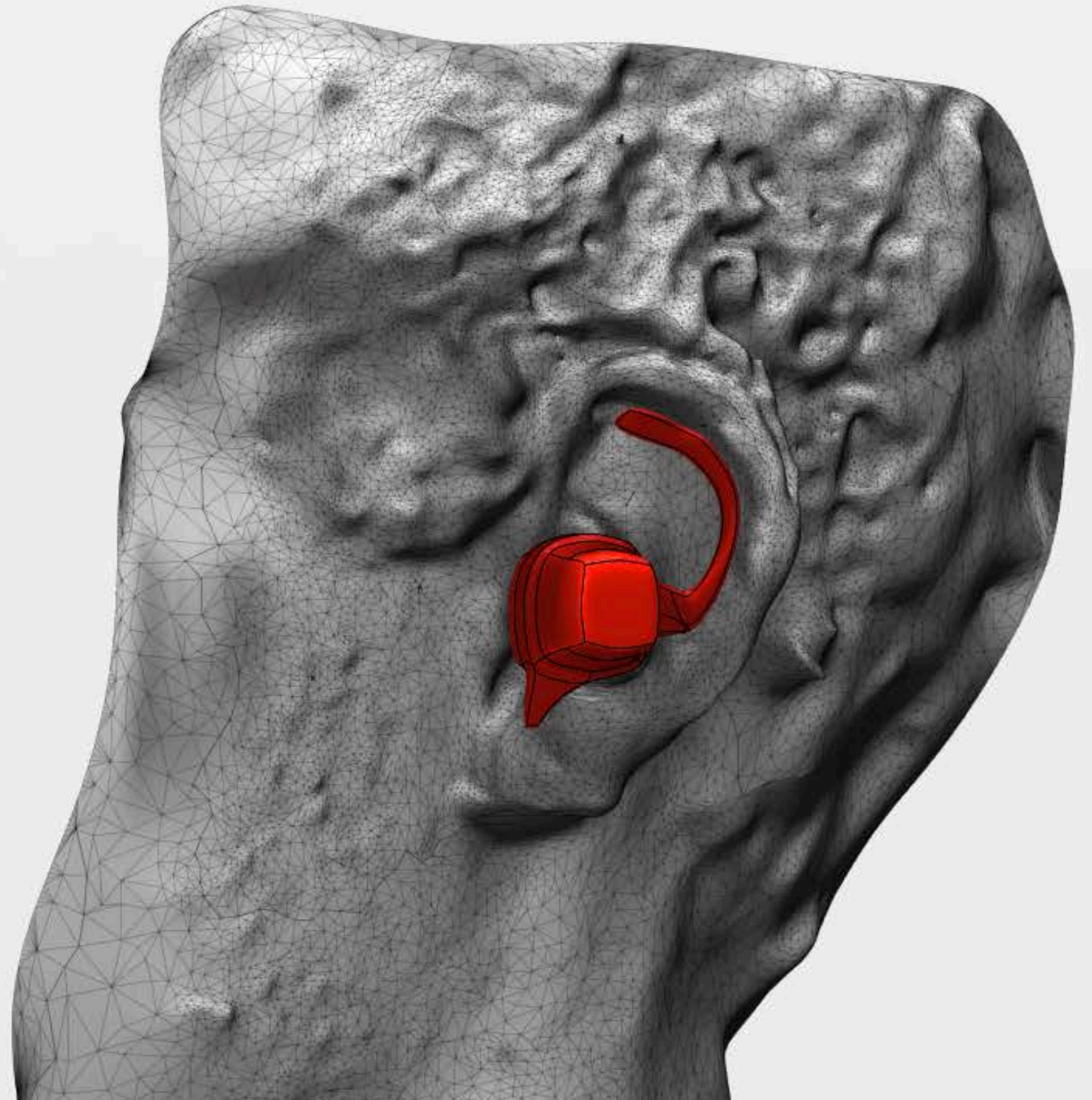
# Desk lamp

## Key points:

- Modeling with solids in Model mode
- Creating and editing geometry with as few sketches as possible
- Different ways of editing geometry (Press-Pull vs. Move vs. Extrude)
- Creating new objects (Join vs. New Body vs. New Component)
- Assigning materials and rendering



# Example 3: Mesh Experience

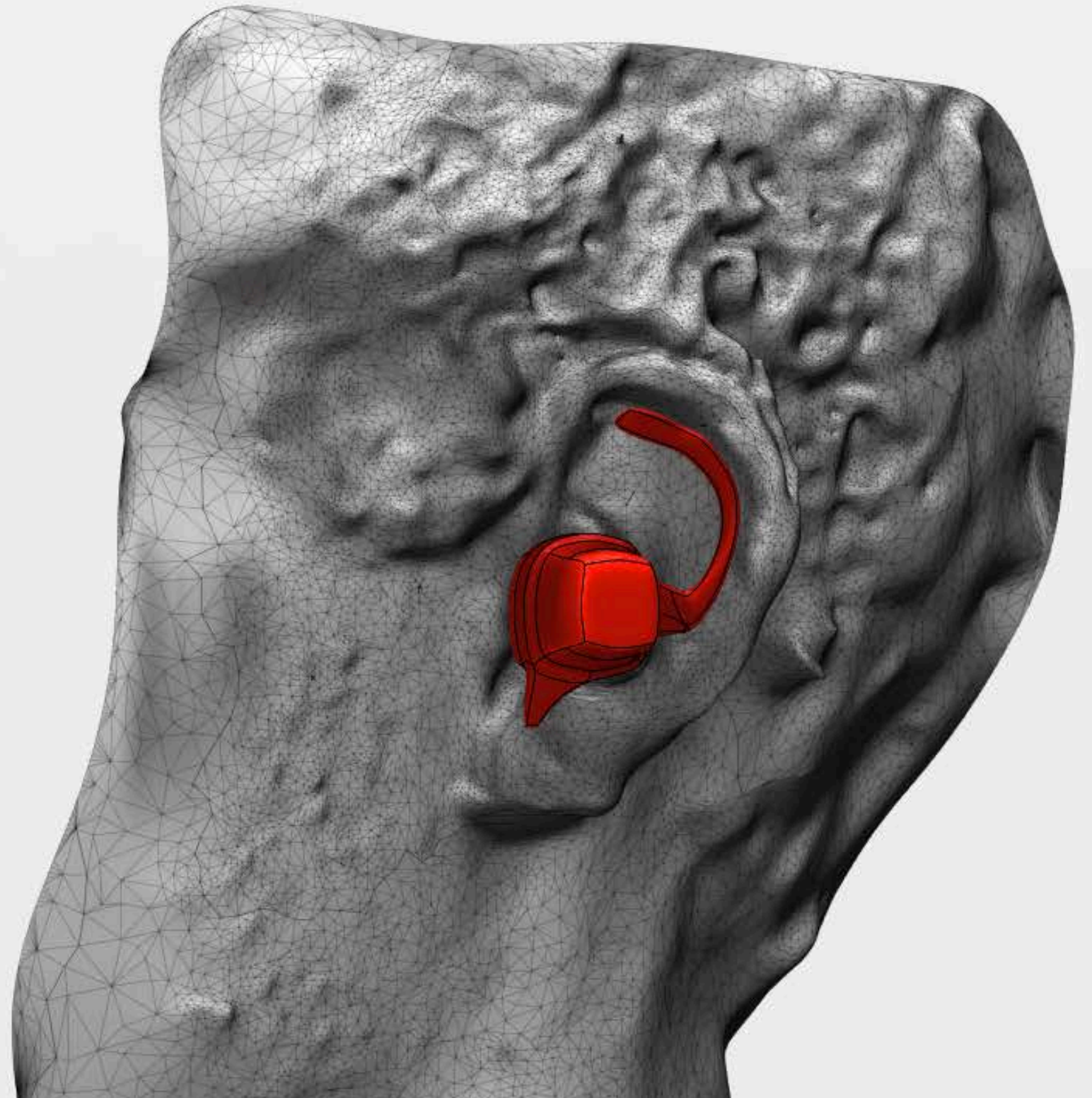




# Mesh experience

## Key points:

- Importing OBJ or STL data as Mesh from anywhere
- Designing around mesh data
- The future of mesh for Fusion 360





**Alex.Lobos@rit.edu**

**Keqing.Song@Autodesk.com**

