The Feature Of Making Dream

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About the Speaker (Matteo CROCETTI)

Matteo Crocetti started his work path 17 year ago from Cimatron Ltd (CAD\CAM software) as Application engineer. He also worked for Think3 (Tinkdesign CAD) and move his knowledge across several resellers of SolidEdge, PTC and Solidthinking. 2 years ago he joined Autodesk as Technical Sales EMEA focused on Data Management and Digital Prototyping products.



About the Speaker (Bertrand MASURE)

After several years experience with SolidWorks reseller mainly based on Data Management and CAD Methodology, **Bertrand Masure** joined the Autodesk MFG South Europe Team 3 years ago with a focus on supporting internal and channel sales activities regarding the MFG portfolio, mainly in France.



Bertrand has 3 hobbies:

Kite Buggying, Squash and his 4 girls (Wife + 3 Daughters)

Class summary

This class will cover two design process workflow inside **Fusion360** with different modeling tools.

During the live demo we are going to discover golden rules and tips and tricks for using in a better way the **Freeform** commands.





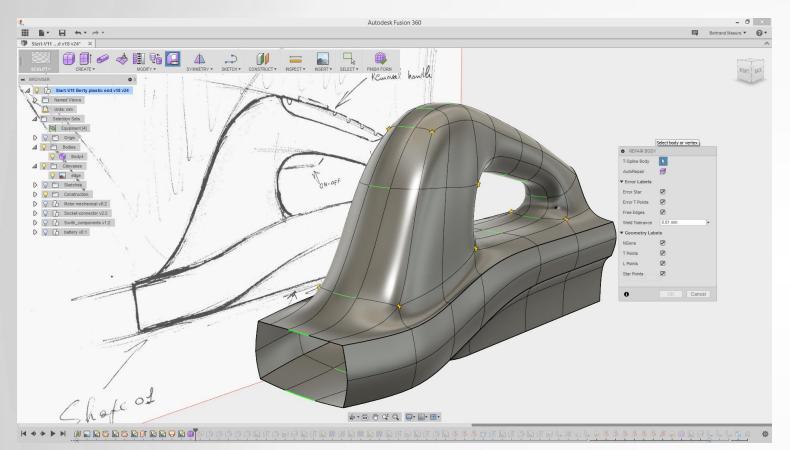
Key learning objectives

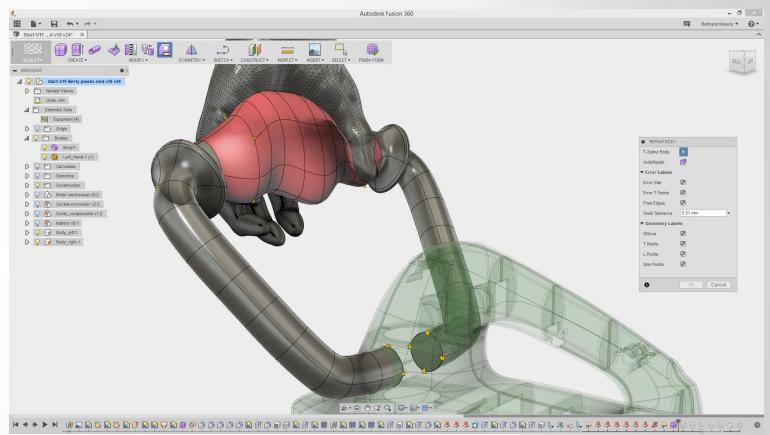
At the end of this class, you will be able to:

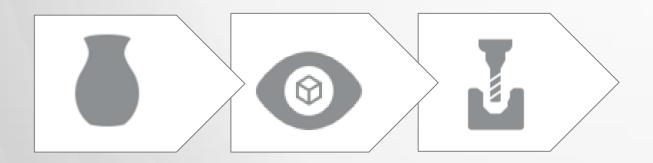
- Apply the Freeform Modeling Golden Rules
- Use the Fusion 360 Environment
- Overview the CAM Environment
- Overview the 3D Print Environment



FreeForm Modeling | Workflows















1st Design Process

Freeform / Engineering / Manufacturing CAM



Design

Quickly iterate on design ideas from a **canvas** with sculpting tools to explore form and modeling tools to create finishing features.

Engineer

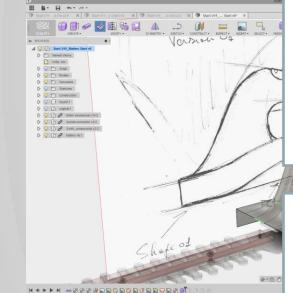
Add engineering detail; create assemblies, photorealistic renderings, and animations

Fabricate

Create toolpaths to machine your components and create a prototype.



Bring design teams together in a hybrid environment that harnesses the power of the cloud when necessary and uses local resources when it makes sense.





2nd Design Process

Freeform / Engineering / 3D Print



Design

Quickly iterate on design ideas from an **OBJ** with **sculpting tools** to explore form and modeling tools to create finishing features

D Correction 1

Engineer

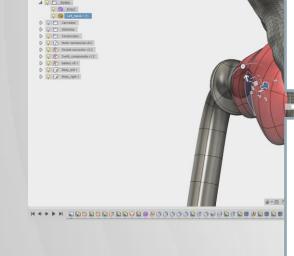
Test fit and motion; create assemblies, photorealistic renderings, and animations

Fabricate

Use the 3D printing workflow to create a prototype

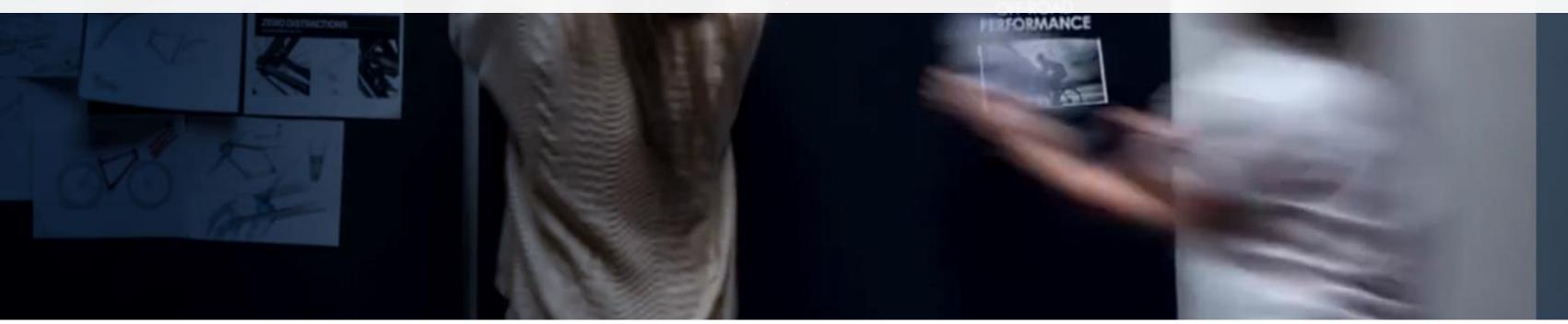


Bring design teams together in a hybrid environment that harnesses the power of the cloud when necessary and uses local resources when it makes sense.





Conclusion



Freeform Best Practice | "Golden Rules"

When You Start:

1. Start with making large edits to multiple Faces and Edge Loops

2. Next edit single Faces and Edges for more refined control

3. Finally edit individual Points to make precise adjustments

For editing your Freeform:

4. Define 3D shape by editing in 2D orthographic views

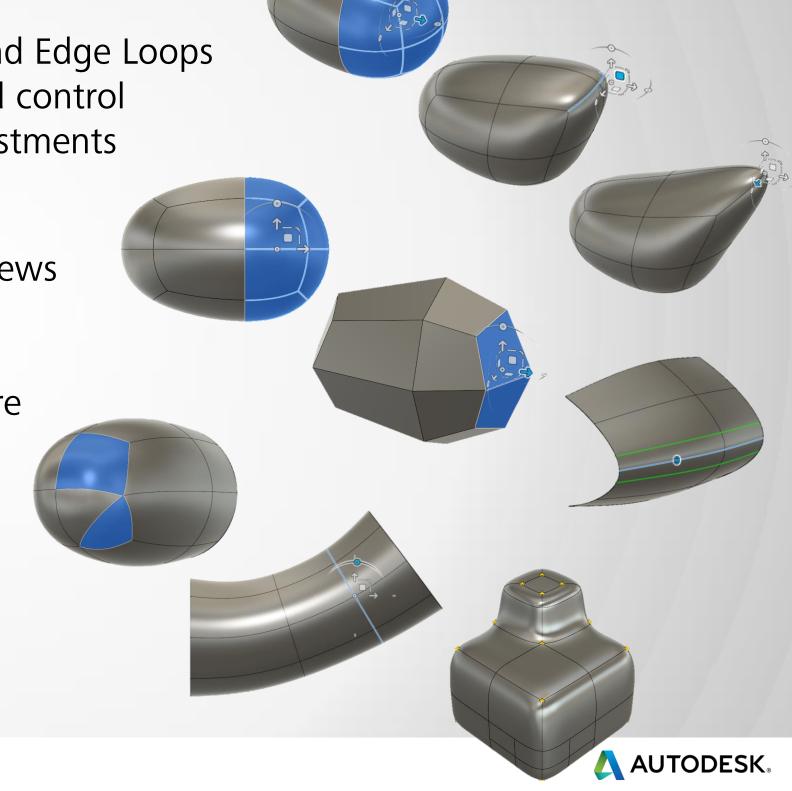
5. Toggle "Smooth" display to analyse CV layout

6. Keep CV layout uniform and proportional

7. Place Edges/CV's close together for tight curvature

Pay attention to:

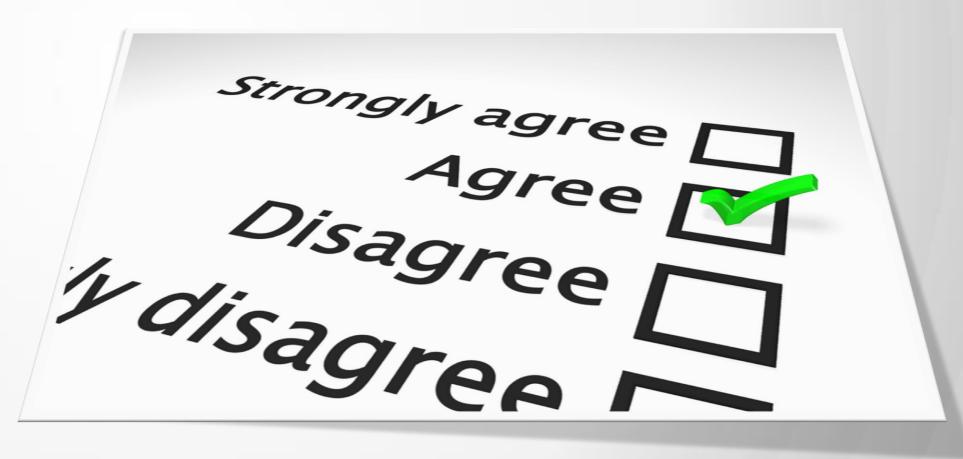
- 8. Always try to use 4-sided Faces
- 9. Ensure Edge Loops are normal to the form
- 10. Try to add Star Points last





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