

BABSON COLLEGE

F.W. OLIN GRADUATE SCHOOL OF BUSINESS

Prototyping Workshop

(Utilized in the MSEL and MBA programs)

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Formlabs
"Innovate & Educate
Challenge"



BABSON

Formlabs “Innovate & Educate Challenge”

Introduction to Babson’s **Entrepreneurial Thought and Action**[®]

- At the core of Babson’s curriculum is ETA[®], which is a methodology that can be applied to a large corporation, raising a family, creating a charity, solving global social issues, or starting a business.
- Prototyping plays a crucial role in ETA[®], so Babson has dedicated a space specifically for prototyping, called “Design Zone 125”.
- The following slides show our Prototyping Workshop, which is incorporated into Babson’s curriculum in several ways – both in formal classes & in many extra curricular activities.
- CAD & 3D printing have a unique place in the prototyping spectrum, so we walk through the design and 3D Printing of a Keychain, which is customized by each student (for example, with their initials).
- The STL file submitted with this curriculum shows a keychain design variation which incorporates the Babson Globe Logo.










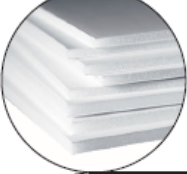


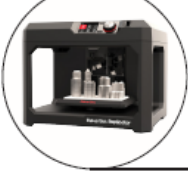


Babson Prototyping Workshop

All Prototyping happens in a dedicated space on campus called “Design Zone 125”



Babson Prototyping Workshop

Overview of Prototyping methods available in DZ 125:

		<div>COST</div> <div>\$ = \$0-10 \$\$ = \$10-\$30</div>	<div>SIZE</div> <div>1 = 14 cubic in. 2 = 11cu.in + 3 = 18cu.in + 4 = 24cu.in + 5 = 24cu.in +</div>	<div>ACCURACY</div> <div>1 = not very accurate 5 = very accurate</div>	<div>TIME</div> <div>1 clock = 1-2hr 2 clock = 1-3hr 3 clock = 1-4hr 4 clock = 1-5hr 5 clock = 4 - 20hr</div>	<div>SKILLS + TOOLS</div> <div>1 = beginner 2 = novice 3 = intermediate 4 = advanced 5 = expert</div>	<div>OUTCOME</div>
CARDBOARD		\$\$	3	1-2		1-2	
PEN & PAPER		\$	2	1-4		1	
FOAM		\$\$	5	1-3		2-3	
FOAM CORE		\$\$	5	1-3		2-3	
3D PRINTER		-	1	5		5	

Babson Prototyping Workshop

Product Development Process For Professional Designers/Engineers

Design Requirements

Create Digital Model/Render

Prototype

Test/Iterate

Launch to Production



Babson Prototyping Workshop

Business Creation Process for Entrepreneurs, Makers, Creators

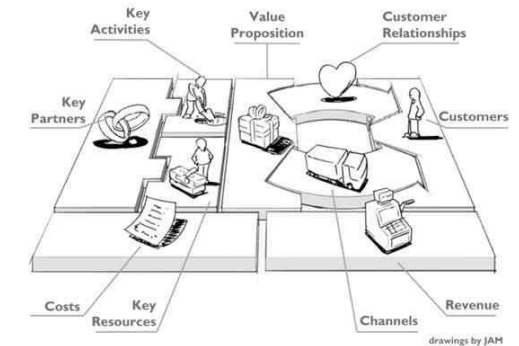
Ideation/Concept/CVP

Visualize a Solution

Rapid Prototype

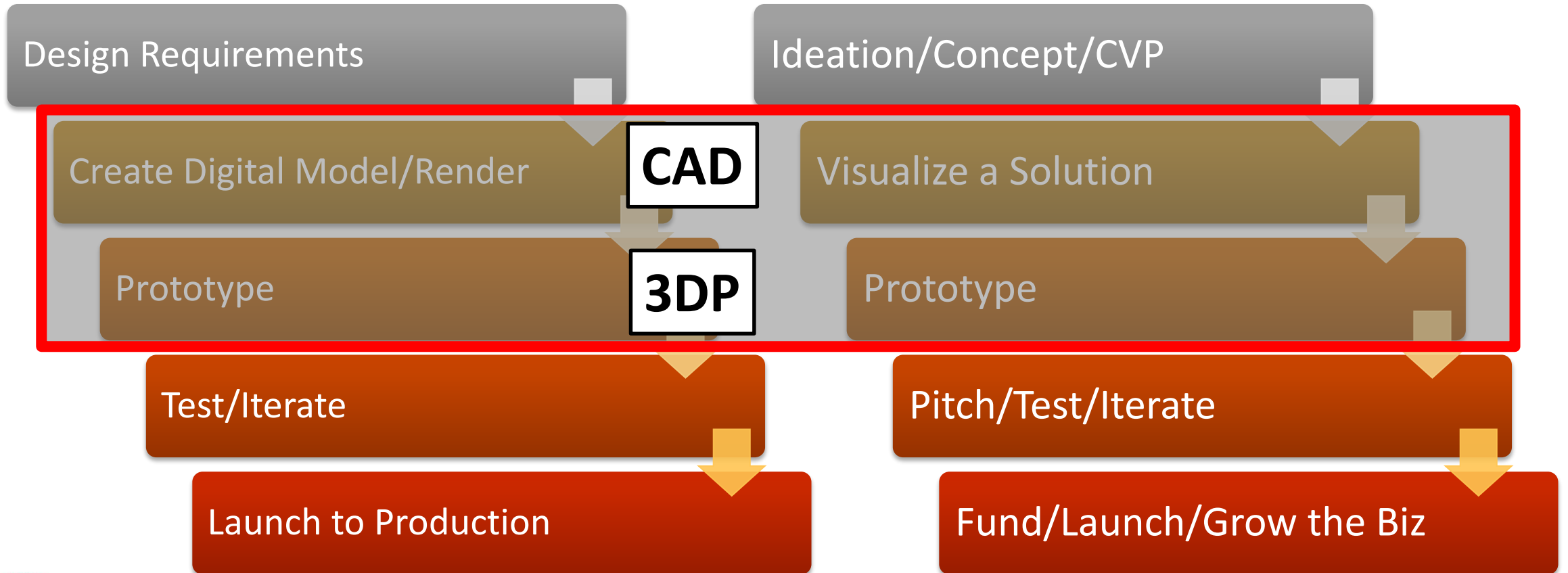
Pitch/Test/Iterate

Fund/Launch/Grow



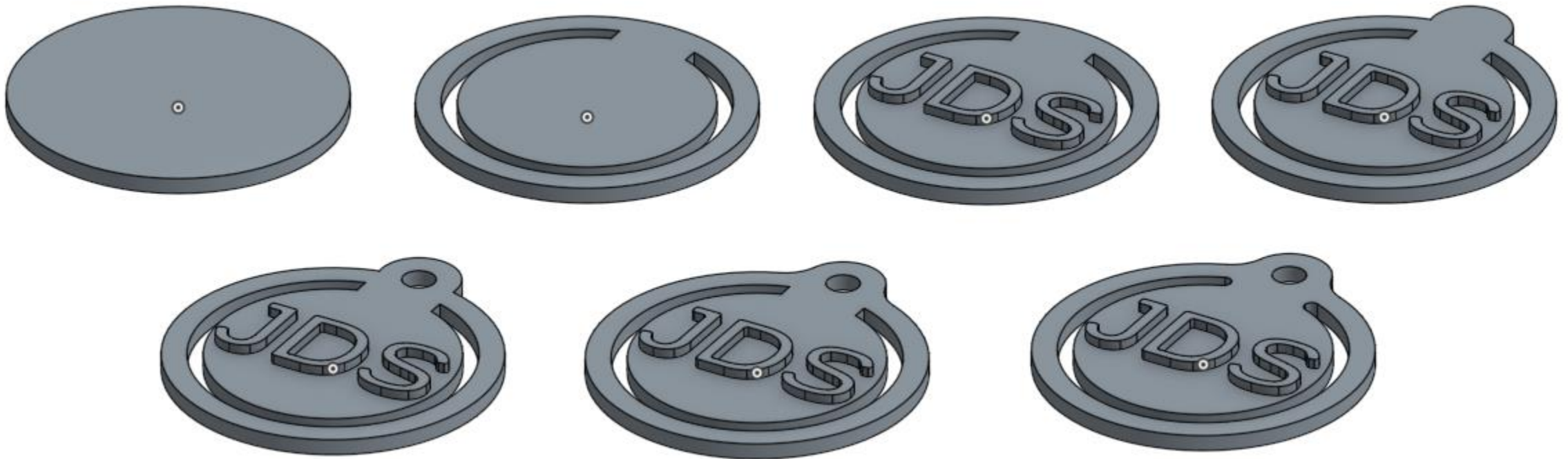
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Common Steps in the Design Engineering and Business Creation Processes



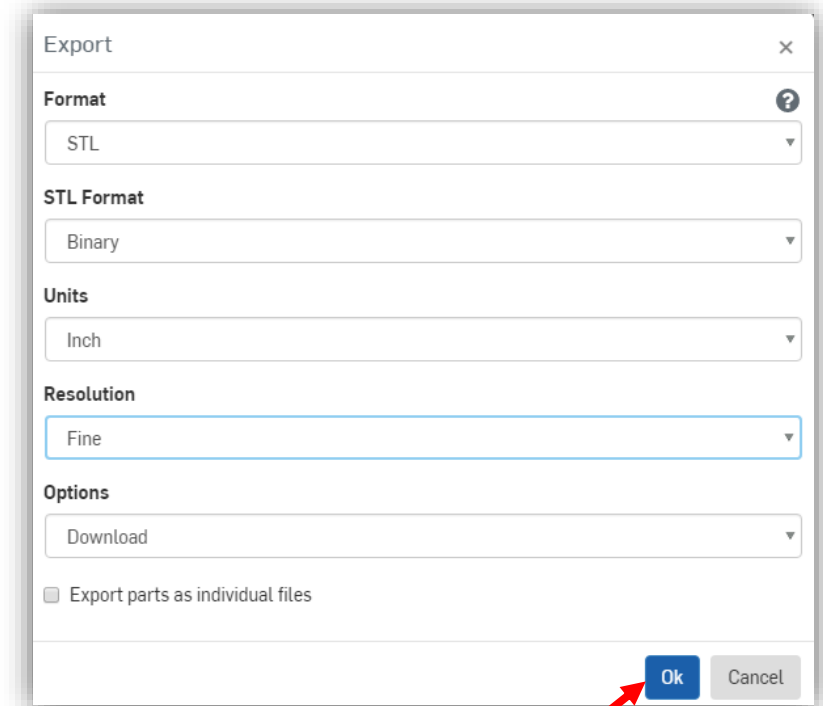
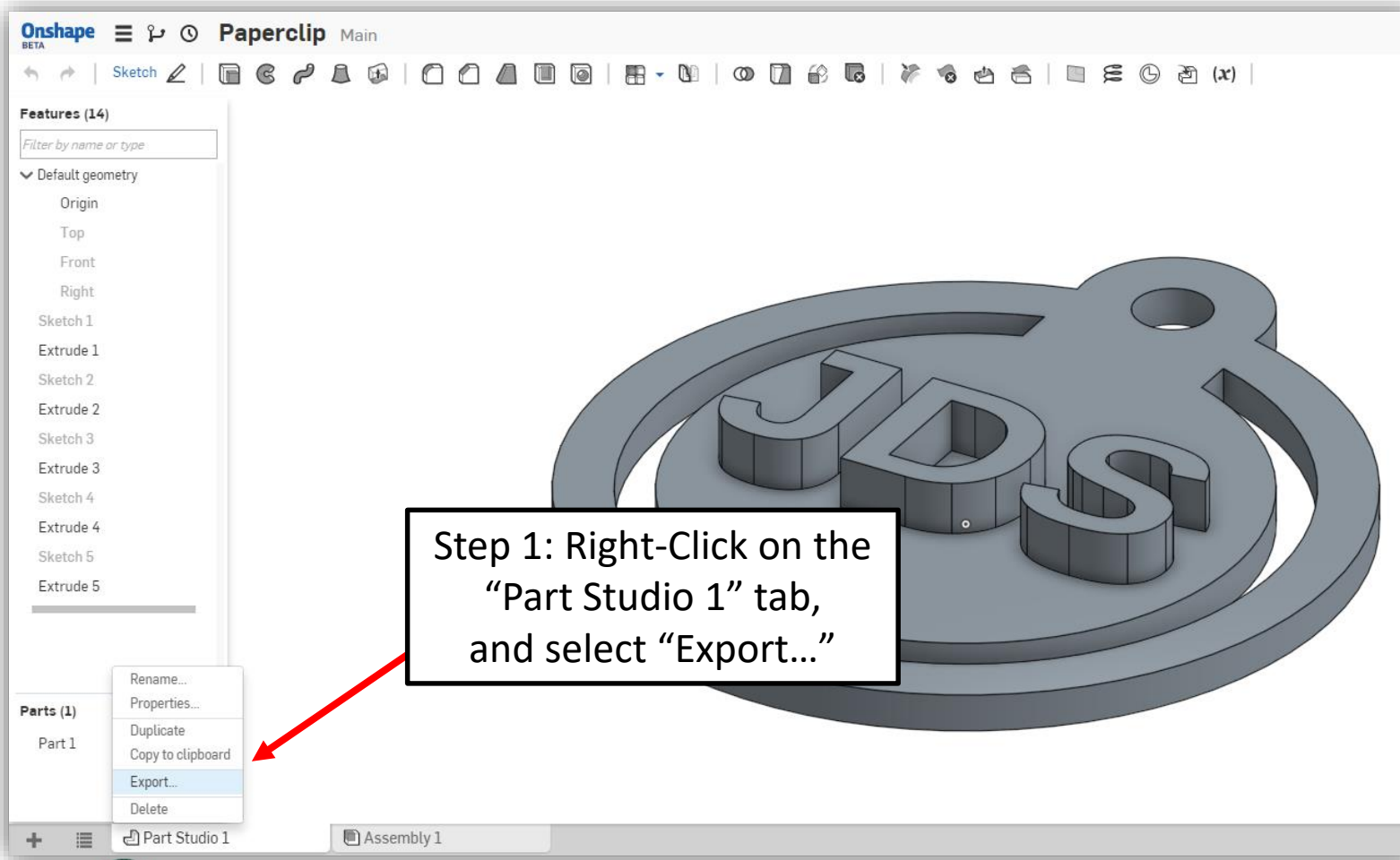
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Hands-On CAD Demo: 3D CAD Geometry Design



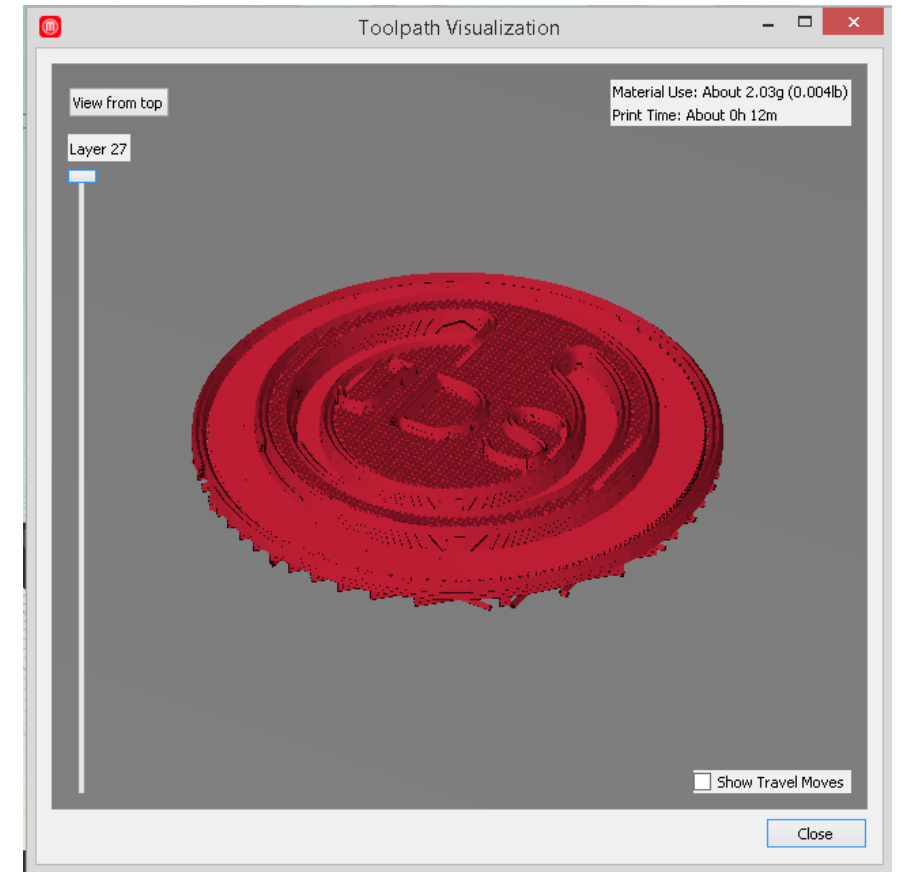
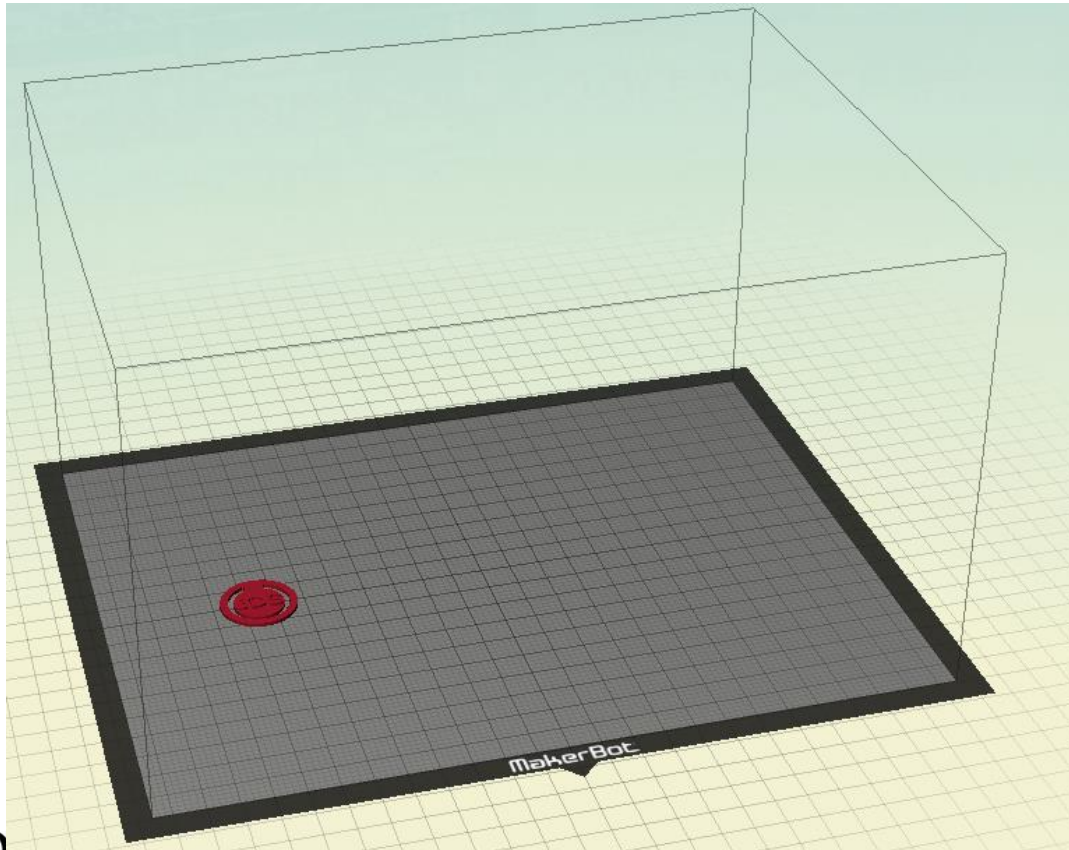
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How to export an “STL” file for 3D Printing



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Brief overview of the 3D Printing Process...



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STL File for the Formlabs Innovate & Educate Challenge: Babson Globe Keychain

