Connecting the electronics engineers and mechanical designer with Eagle and Fusion 360

Harv Saund

Technical Specialist – Fusion 360

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AUTODESK. UNIVERSITY

Safe Harbour

We may make statements regarding planned or future development efforts for our existing or new products and services. These statements are not intended to be a promise or guarantee of future availability of products, services or features but merely reflect our current plans and based on factors currently known to us. These planned and future development efforts may change without notice. Purchasing decisions should not be made based upon reliance on these statements.

These statements are being made as of 20h June 2018 and we assume no obligation to update these forward-looking statements to reflect events that occur or circumstances that exist or change after the date on which they were made. If this presentation is reviewed after 20th June 2018, these statements may no longer contain current or accurate information.

About the Speaker

Harv Saund

Technical Specialist – Fusion 360, Autodesk UK

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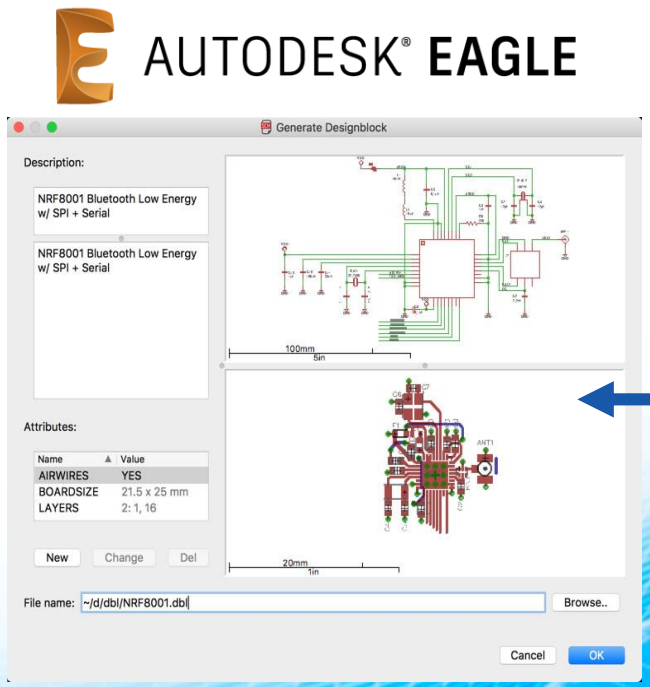
Joined Autodesk in 2016.

Prior to Autodesk, 5 years as a Solidworks technical consultant, 2 years spent in Race Engine Development & a degree in Motorsport Engineering

Product focus is the Fusion 360 platform incl. CAM, Eagle, FEA, Generative Design & Library.IO

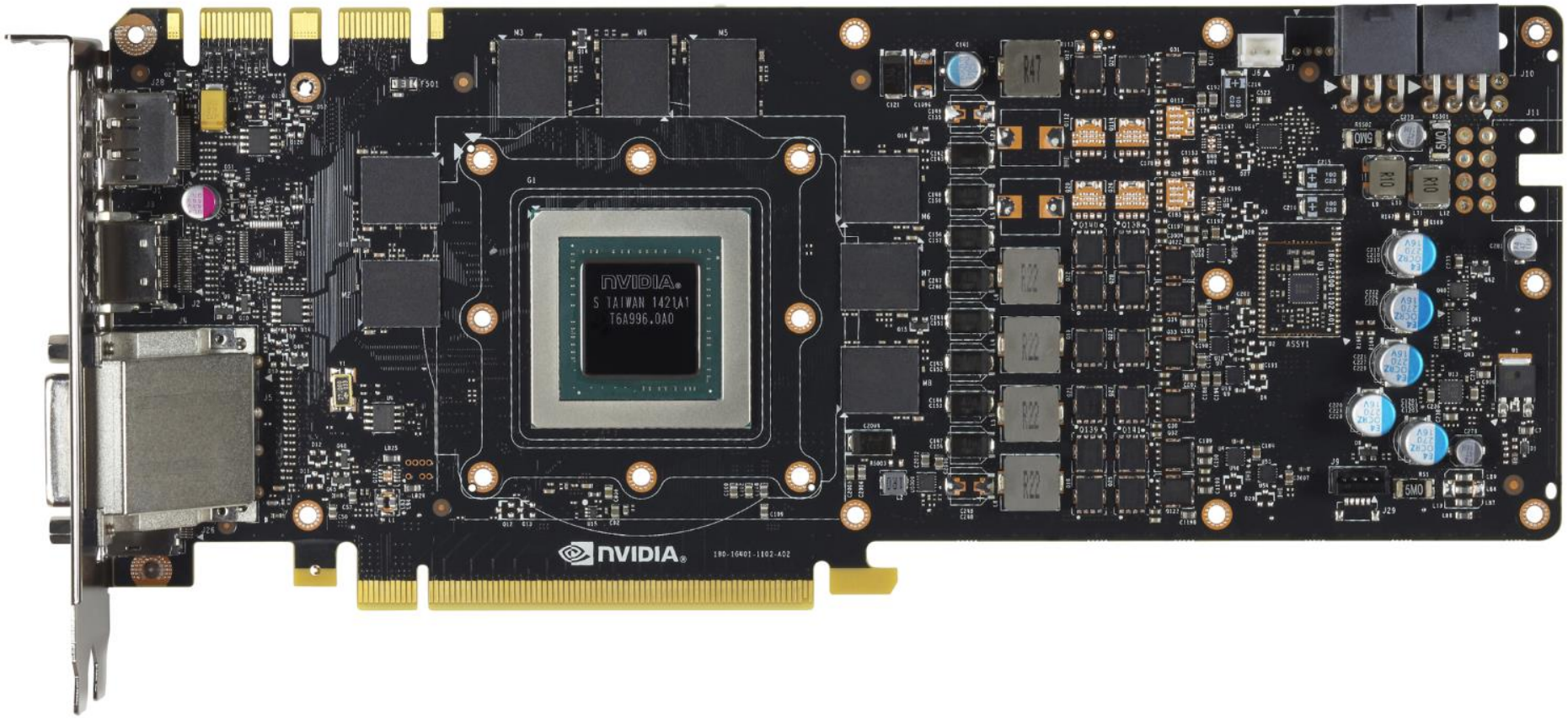
Agenda

- What is a PCB?
- Cloud Connected
- Workflows
  - Eagle to Fusion
  - Fusion to Eagle
  - Bidirectional
- Summary

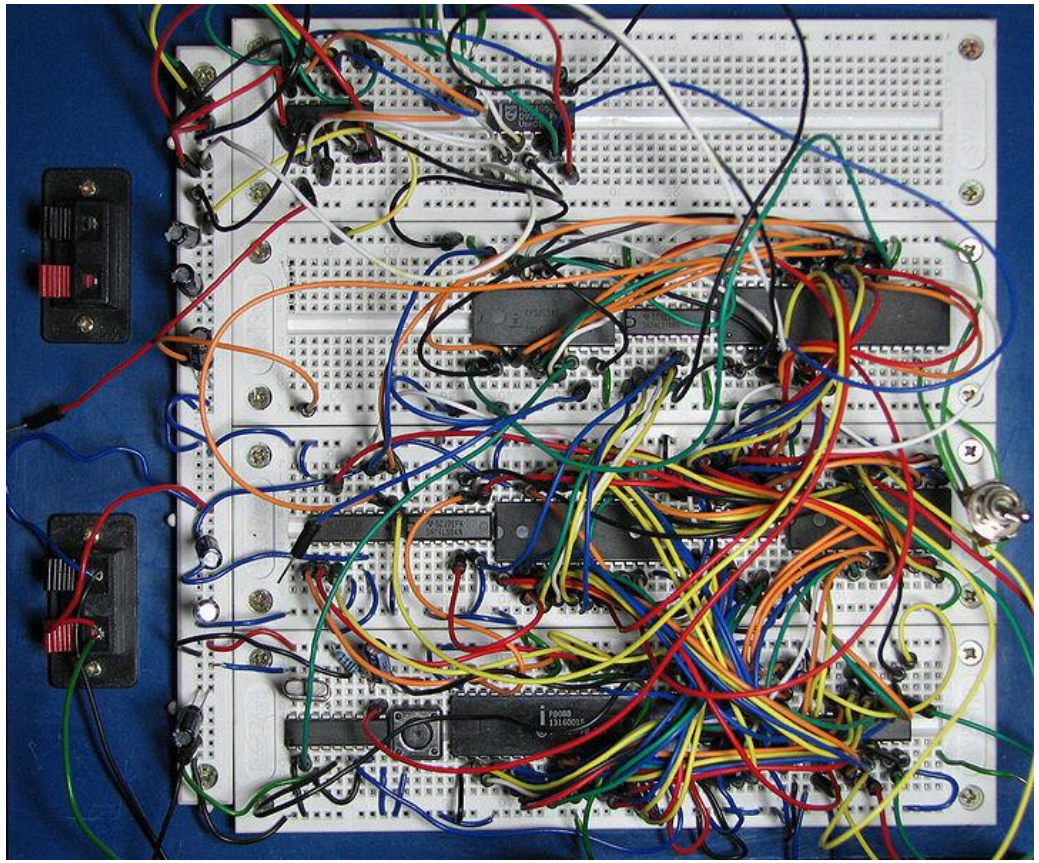


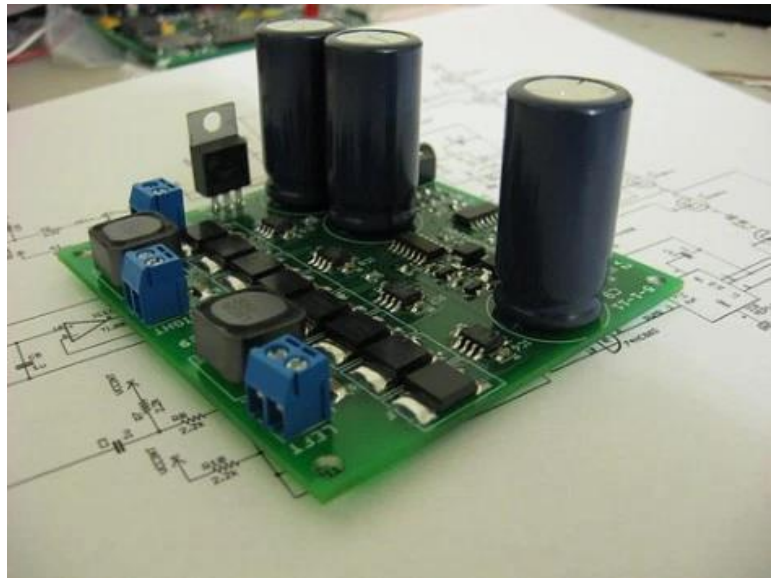
What is a PCB?

What is a PCB?

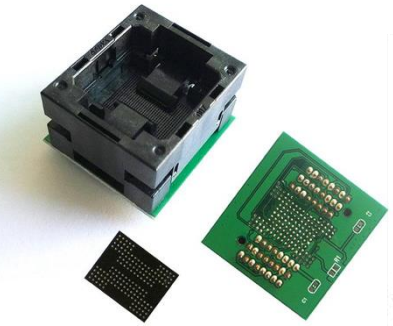


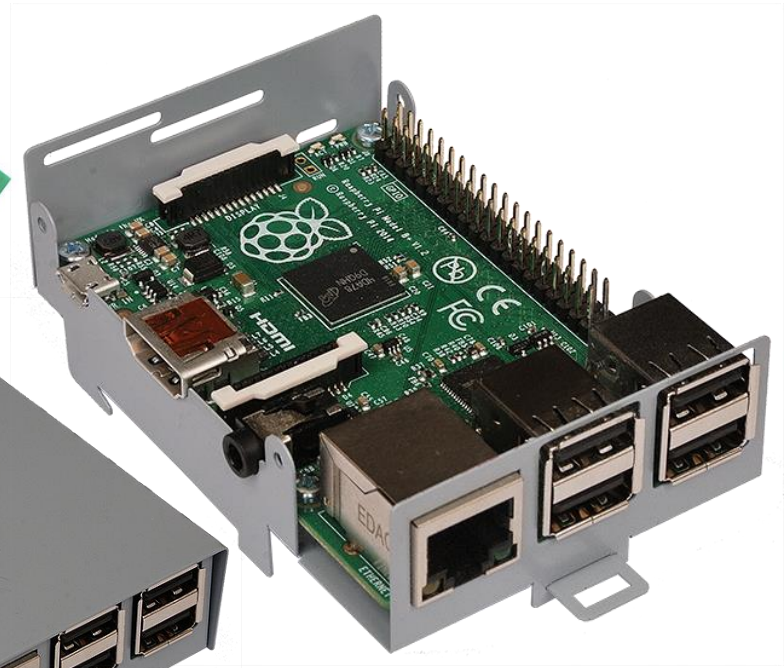
What does a PCB solve?



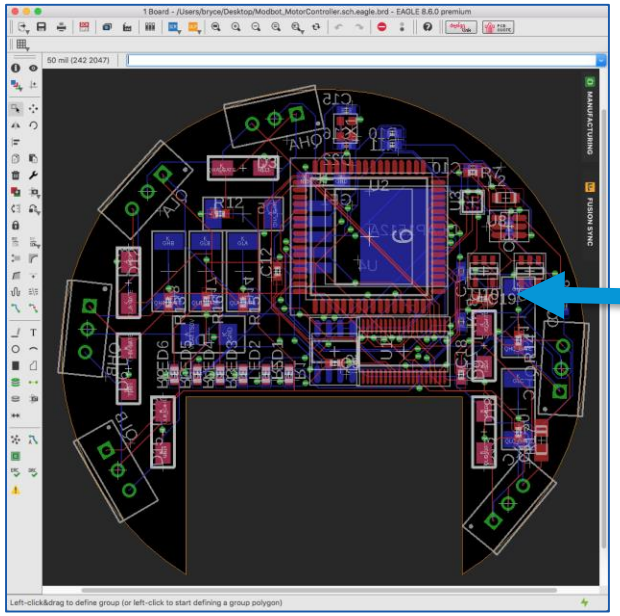


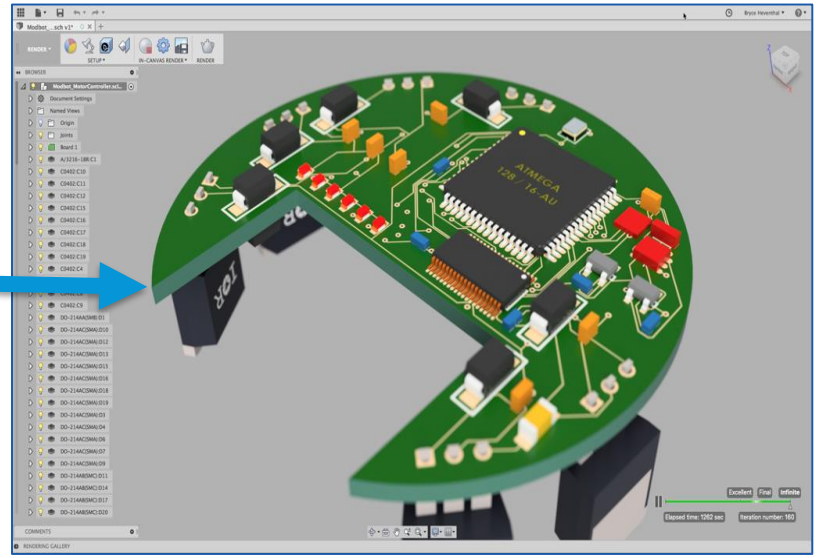
Thinking in Isolation





What is the problem Autodesk are trying to solve?





- >95% of electronics designs have a mechanical design problem
- >90% of those have *multiple*
- Electronics MFG = $80B TAM

Cloud Connected

What is EAGLE?

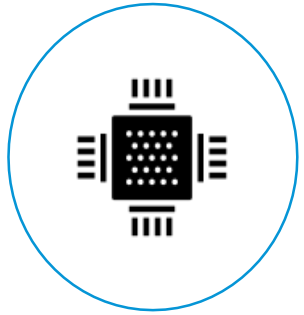
Image courtesy of Maga Animation Studio

Diversity of application

Automotive

Life Sciences

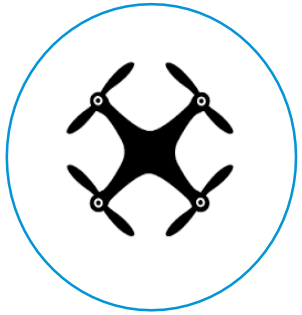
Consumer Electronics



Semiconductors

IoT

Aerospace
& Defense



Electronics
& High-tech

Mobile Devices &
Communication

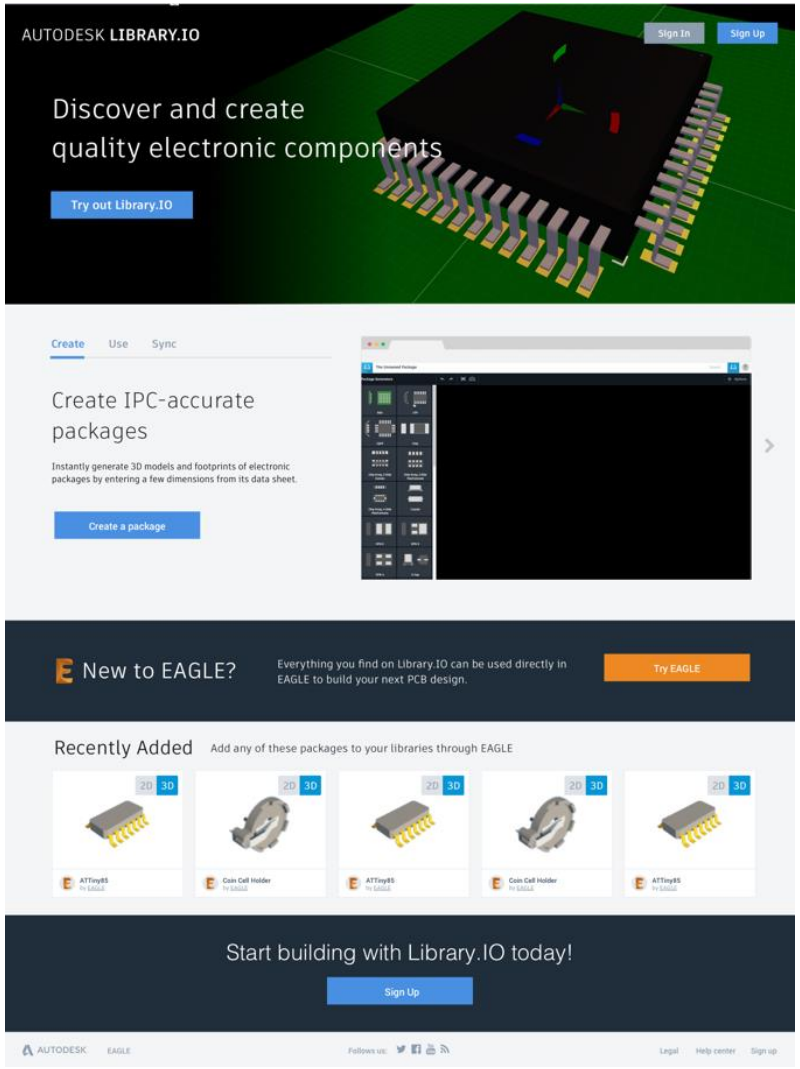
Industrial Controls
Automation

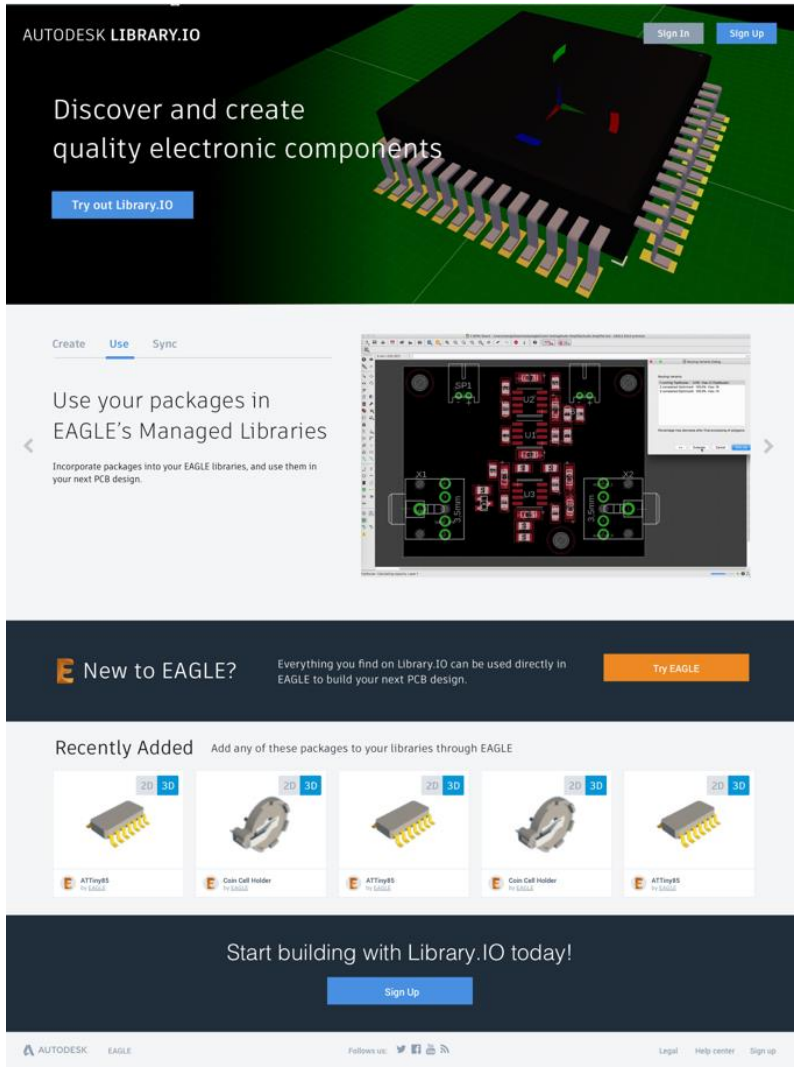
Research &
Education

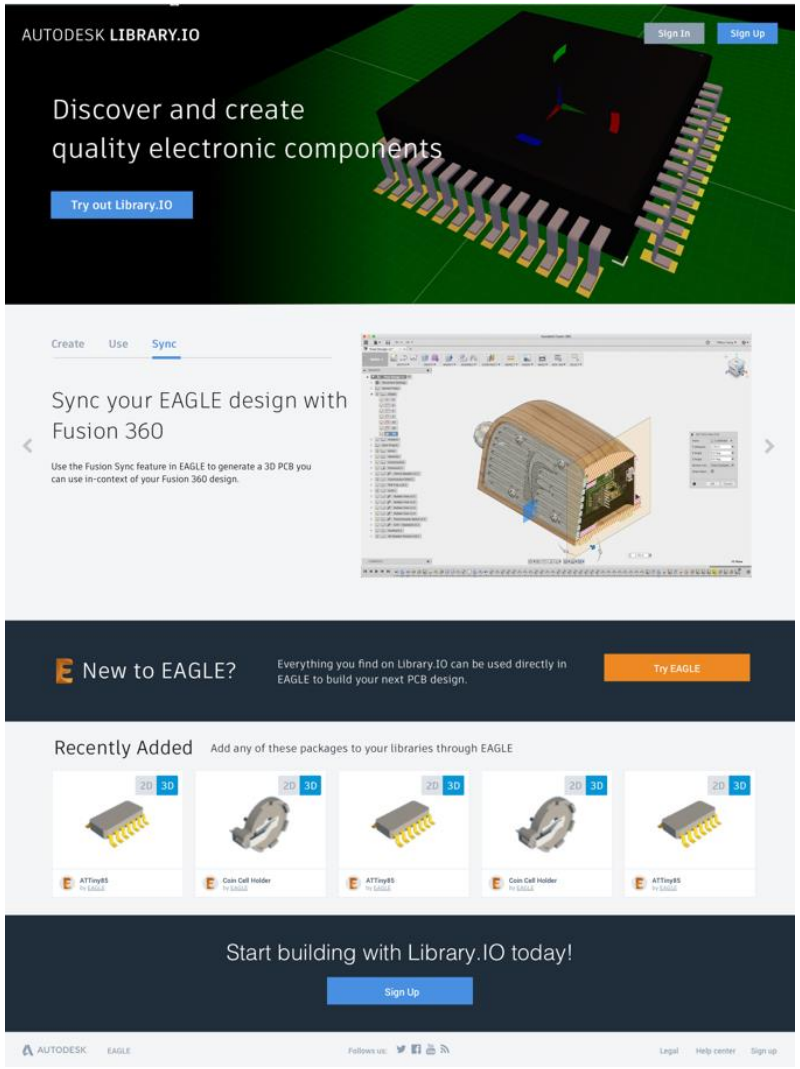
EAGLE is used widely across different industries and applications

What is Fusion 360

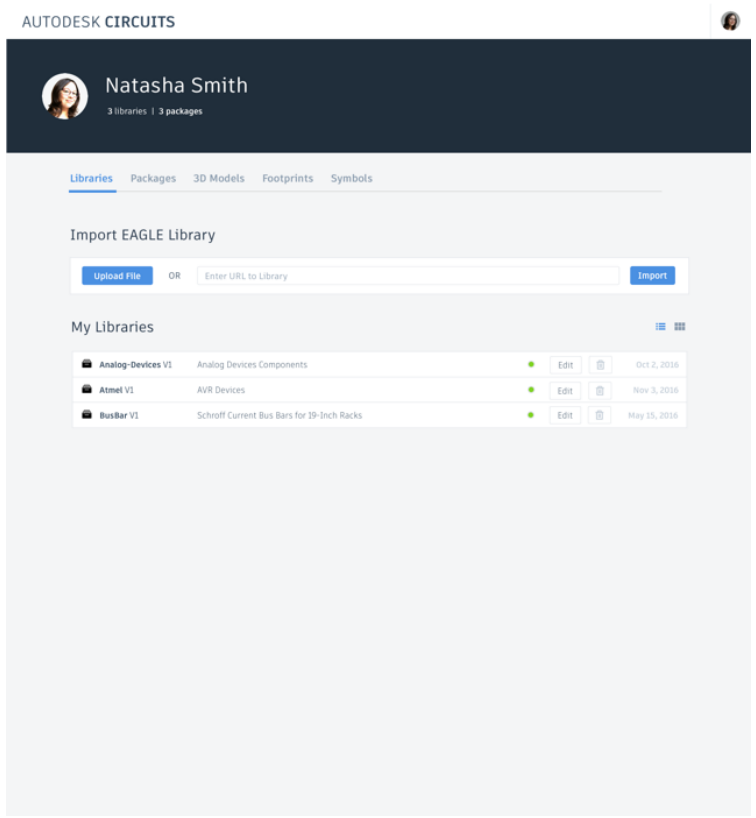
Library.io - the future of 3D ECAD content

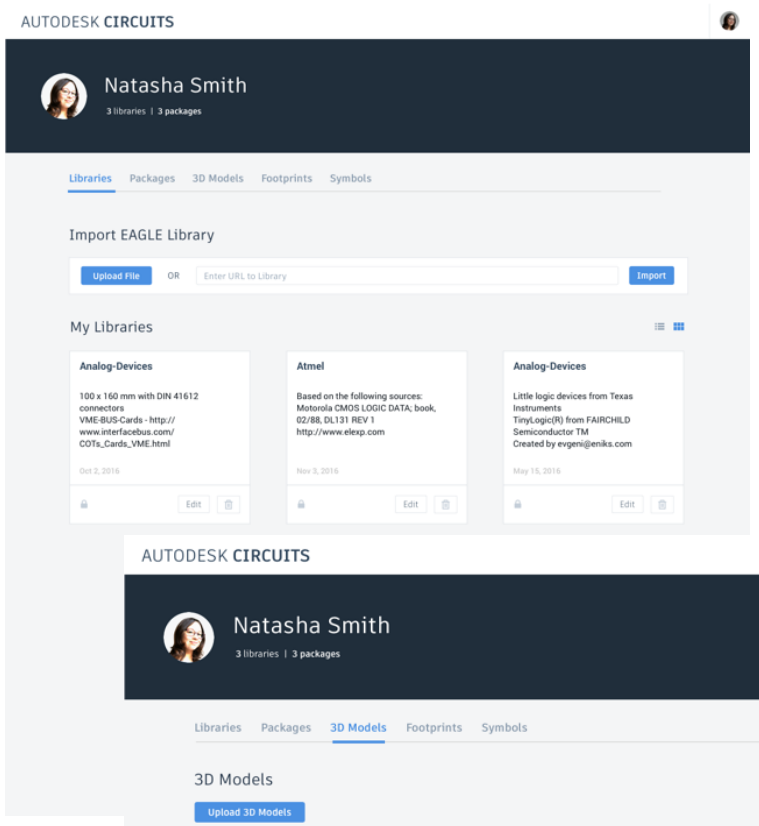


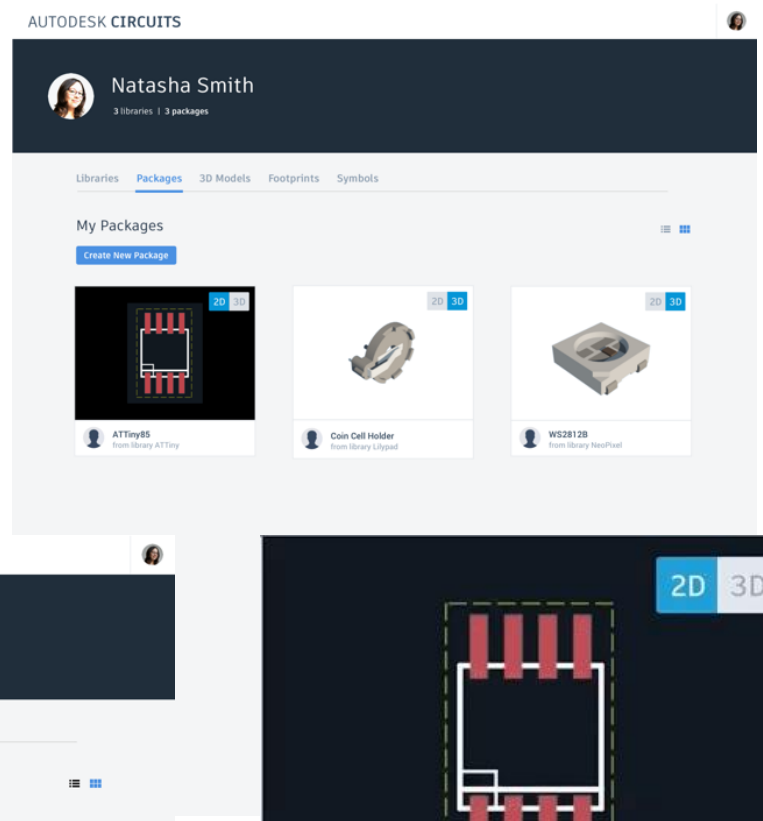


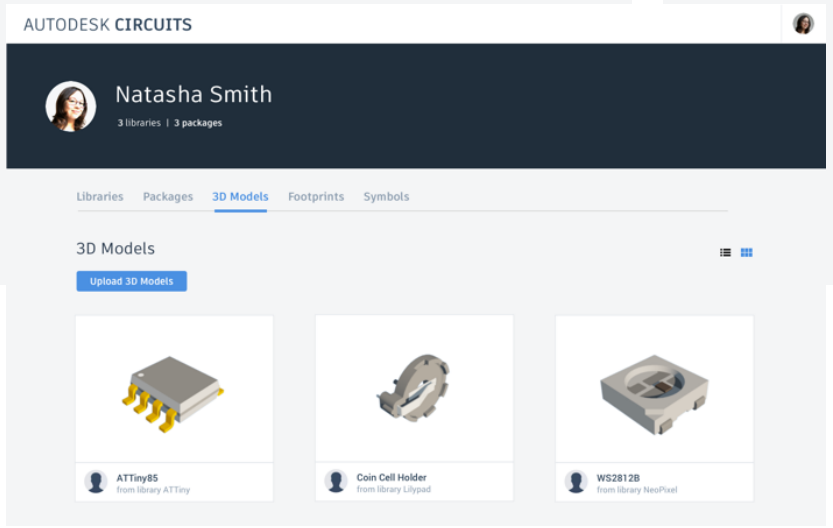


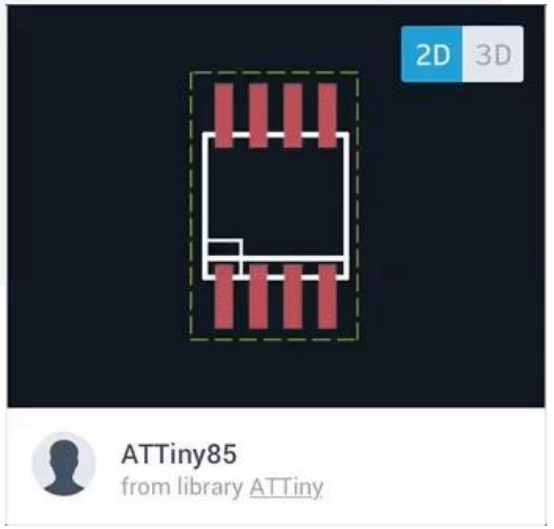
library.io - the future of 3D ECAD content



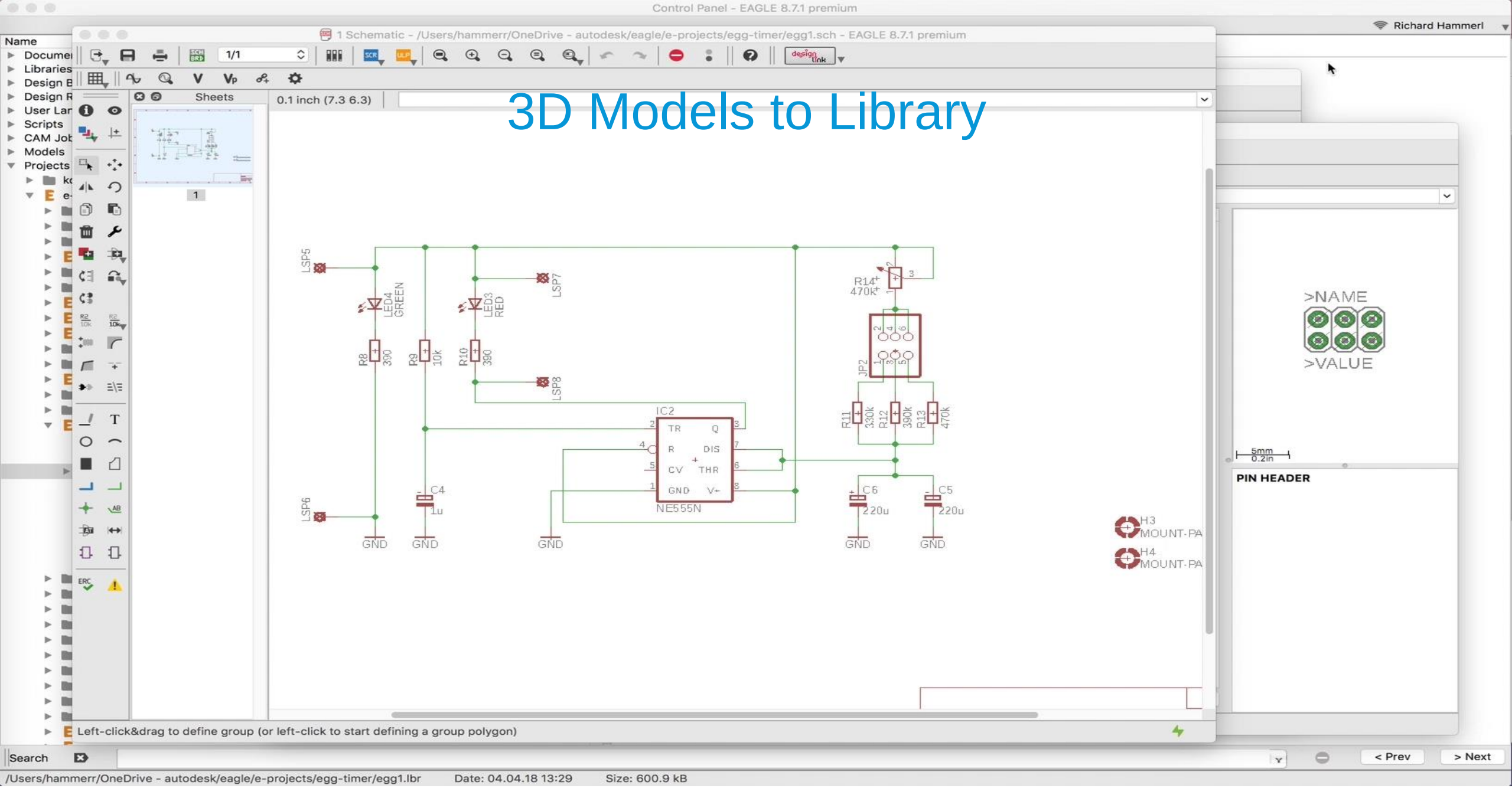




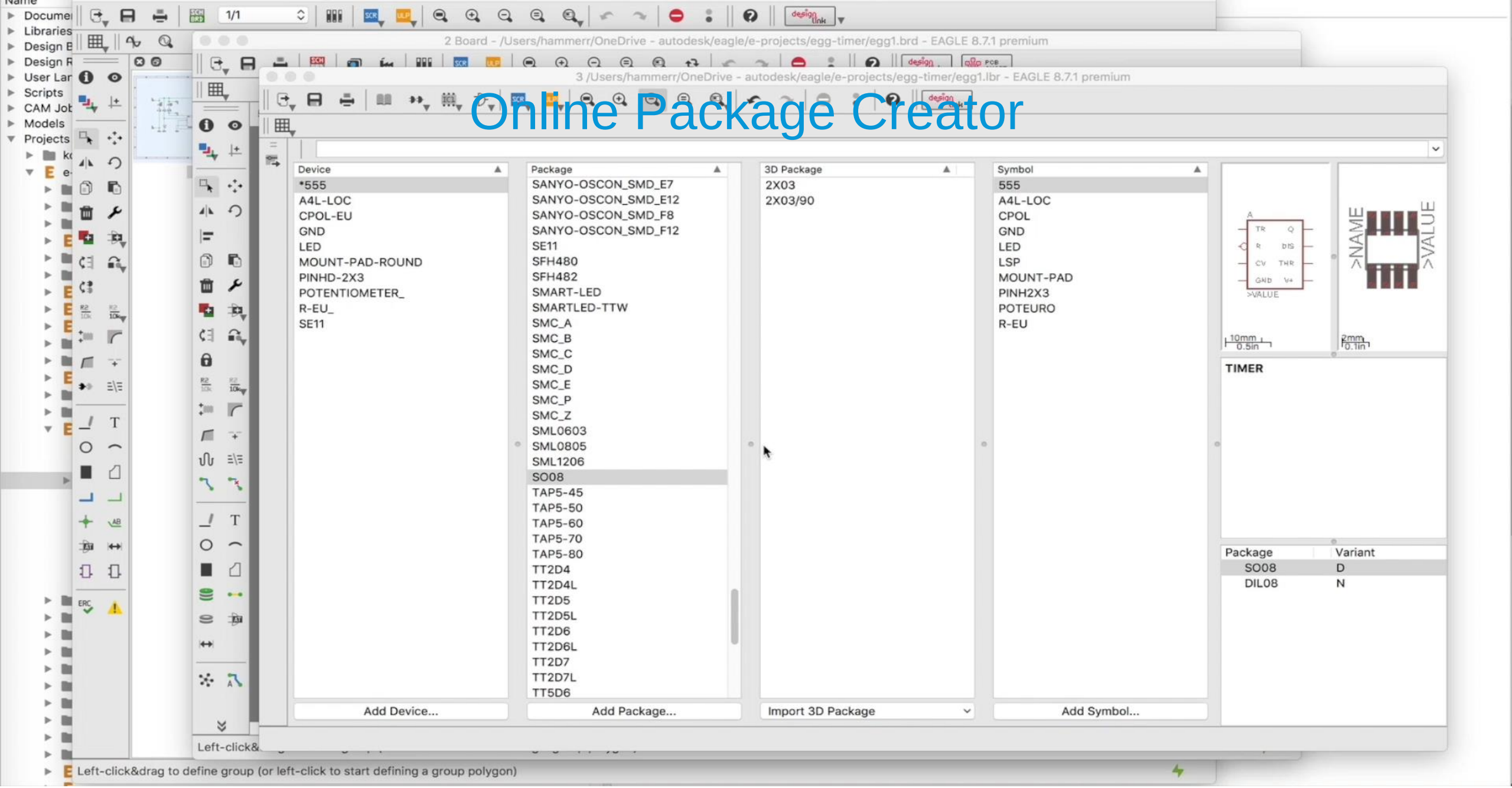


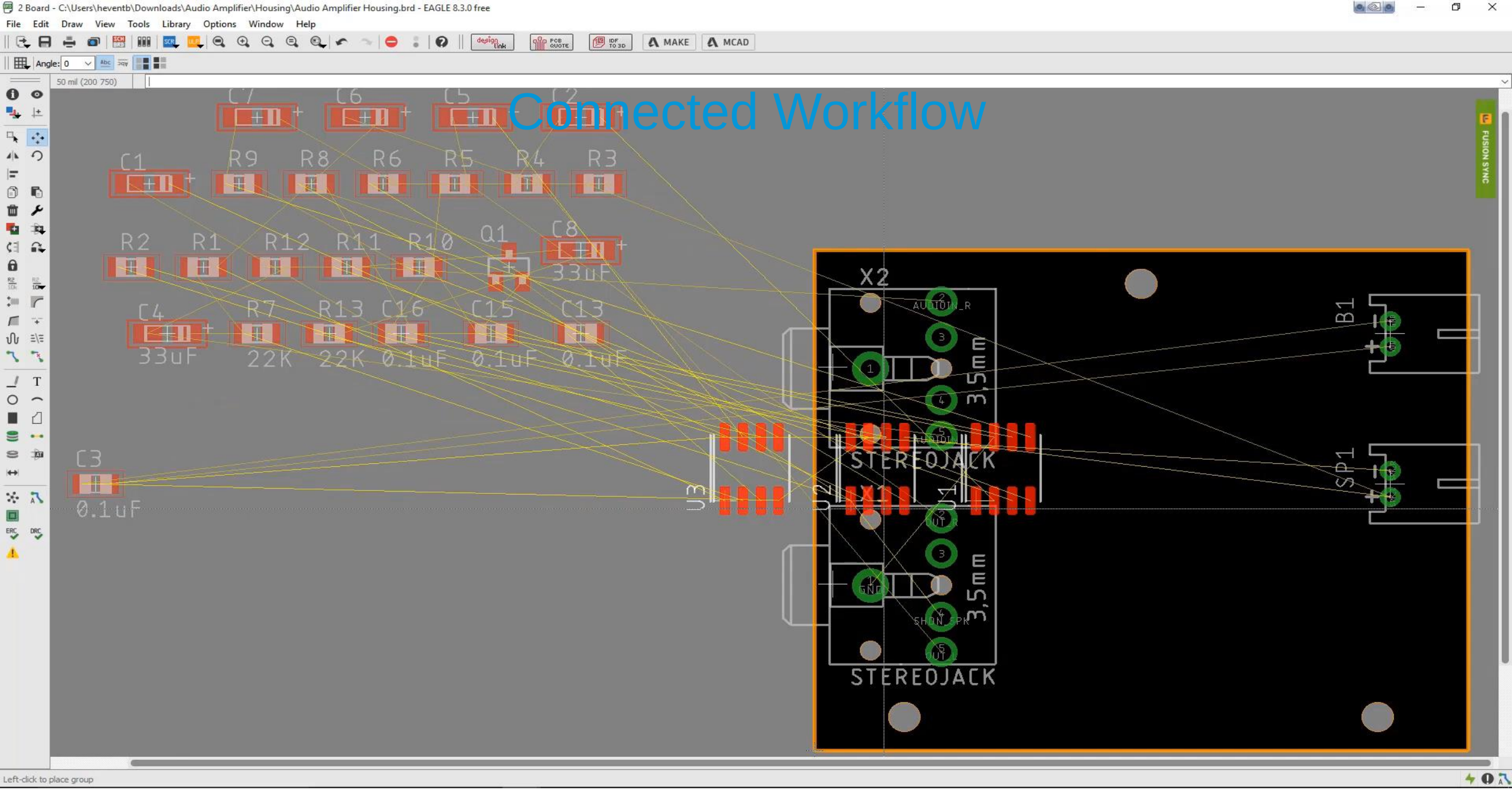


3D Models to Library



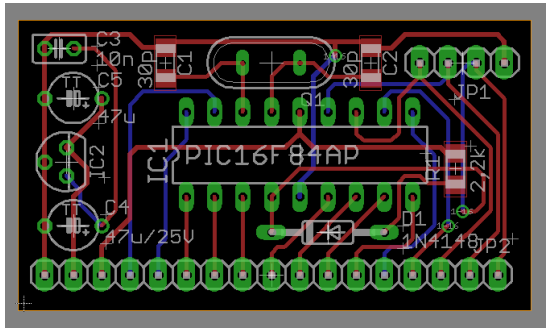
Online Package Creator

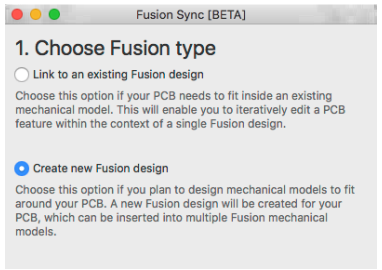


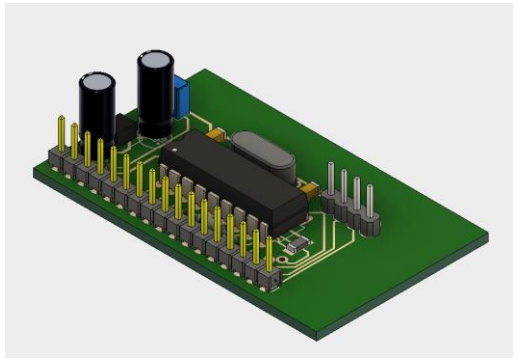


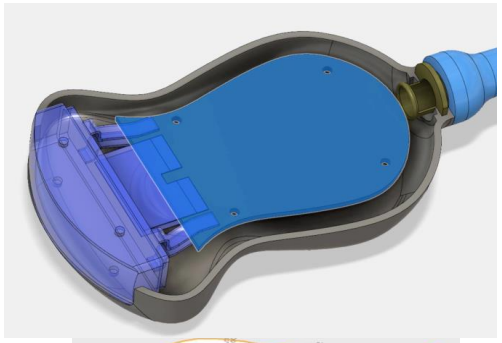
Workflows

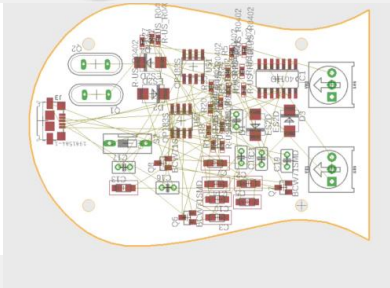
Workflows

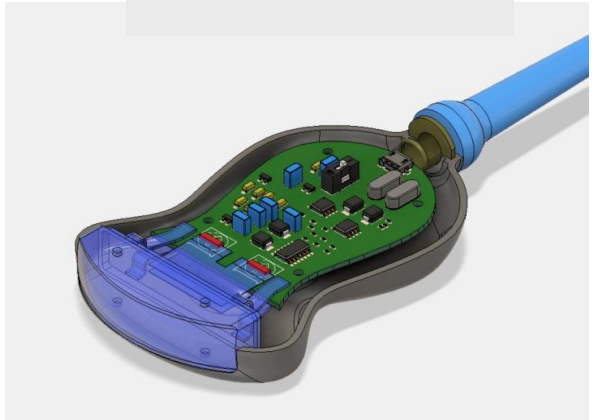


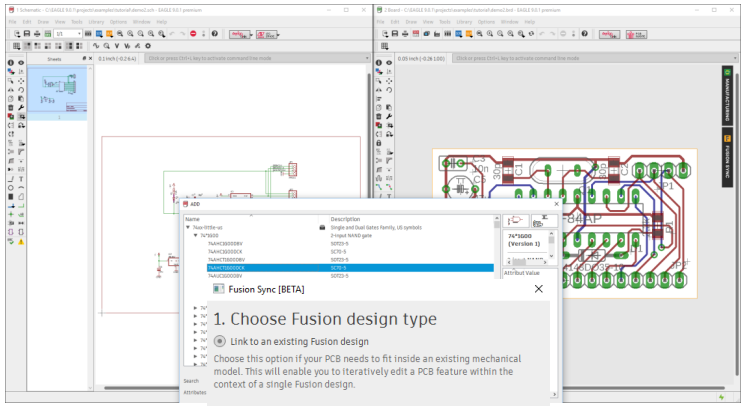


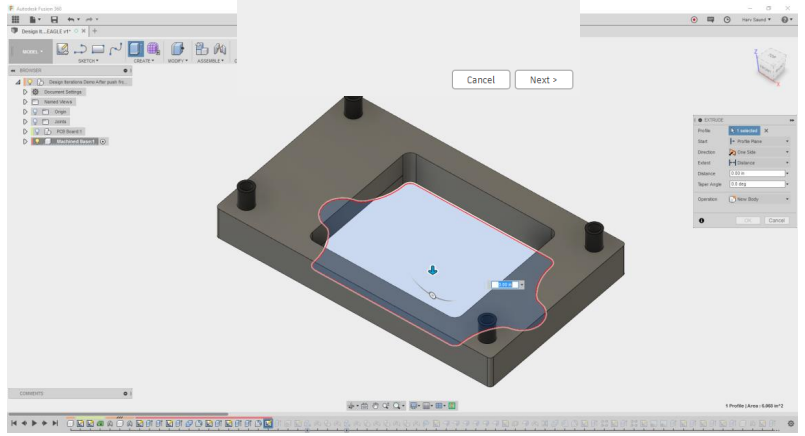




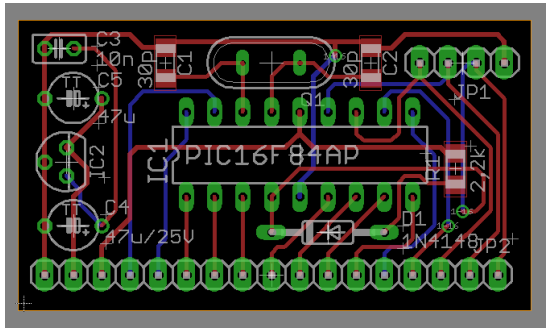


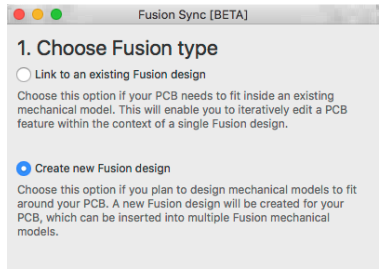


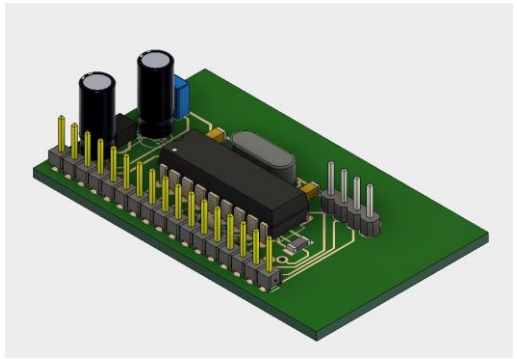


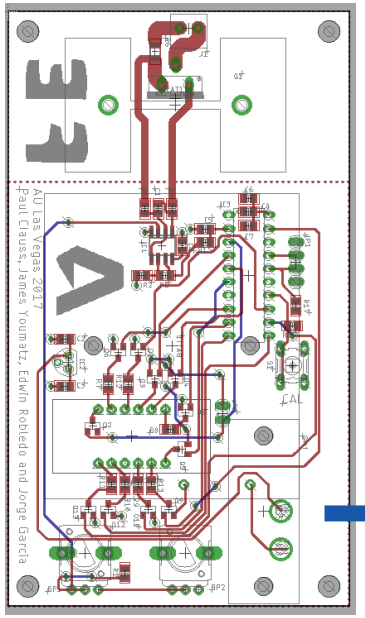


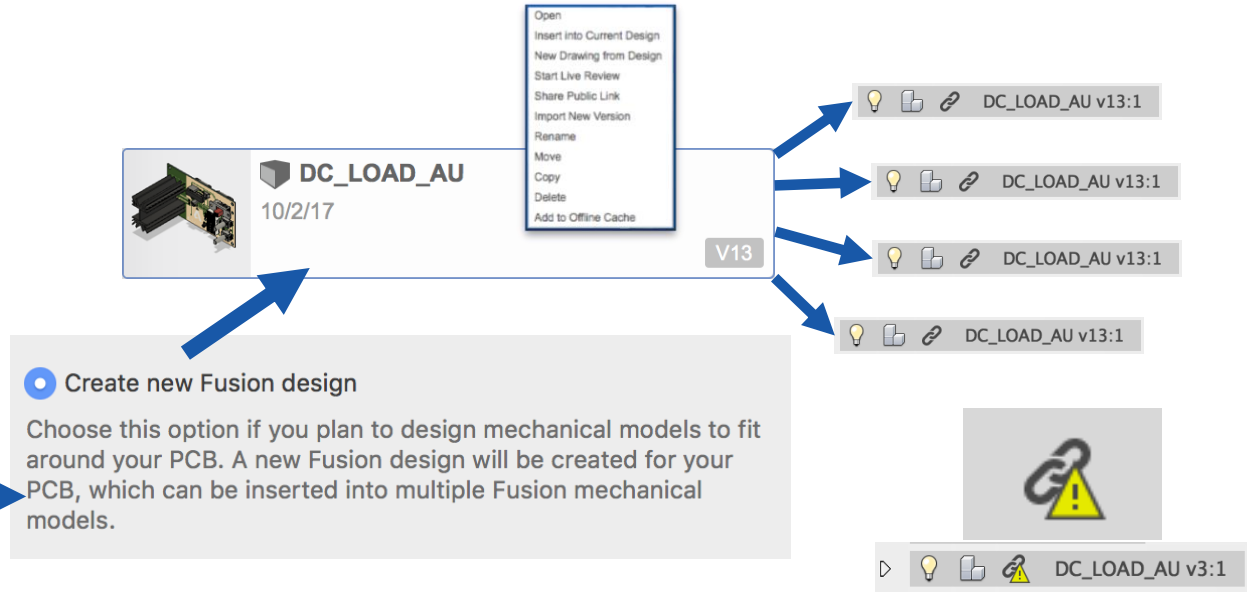
Eagle to Fusion











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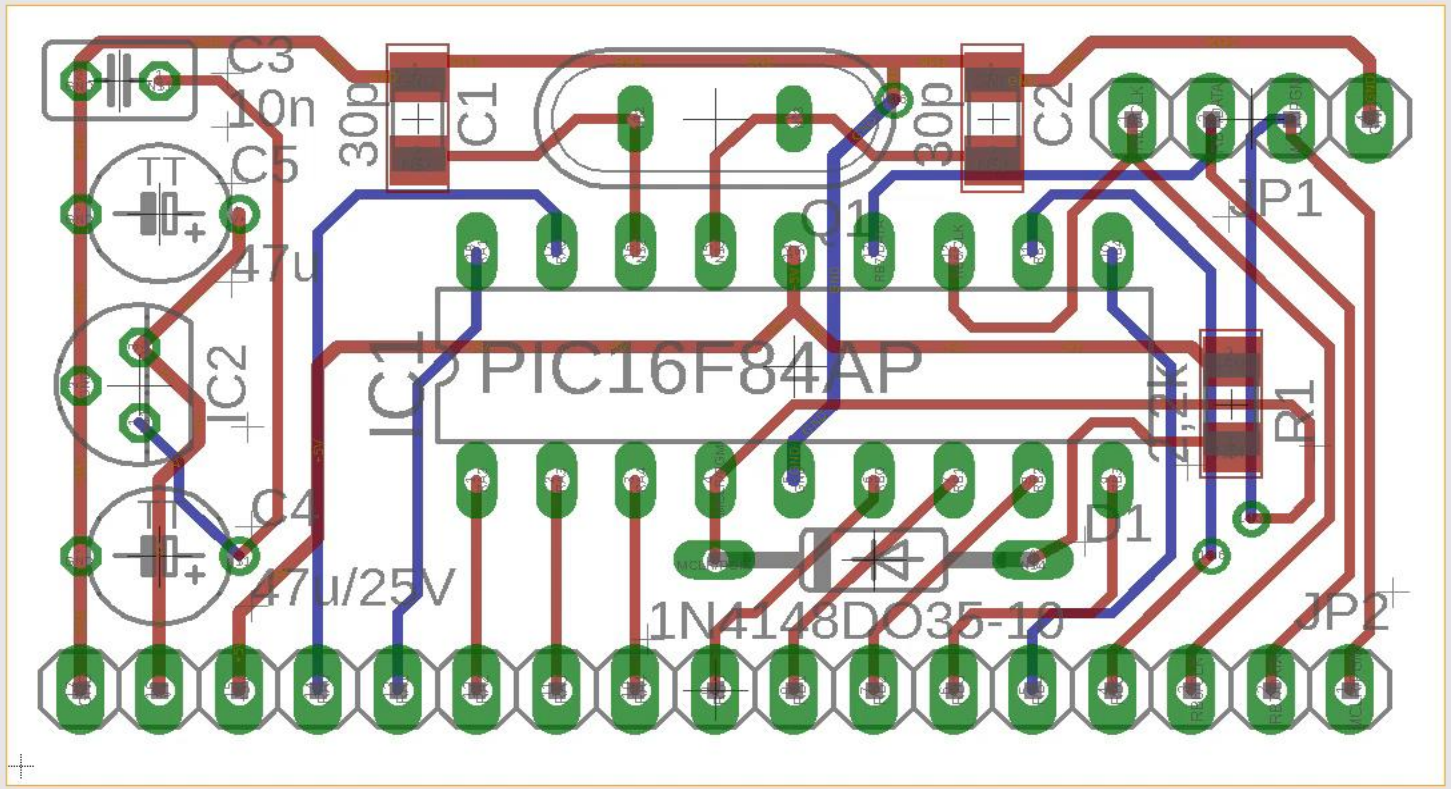

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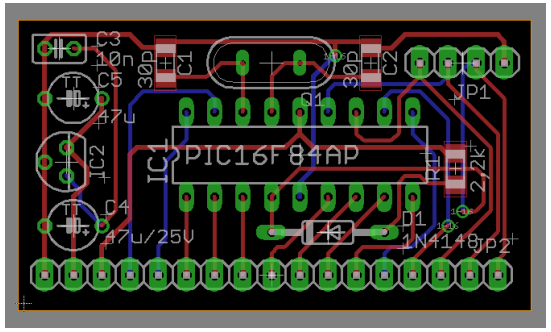

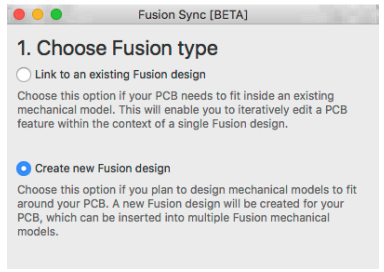

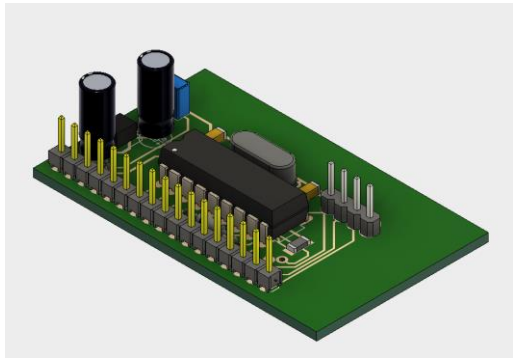

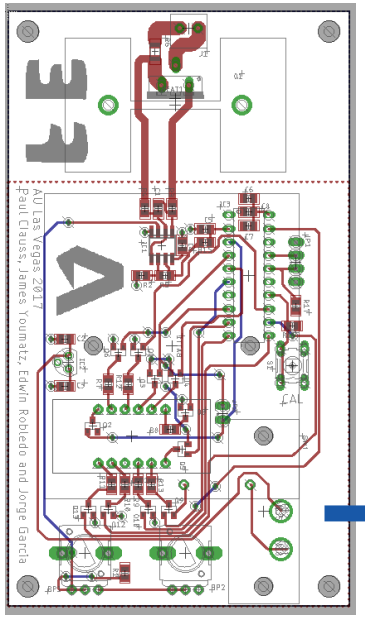

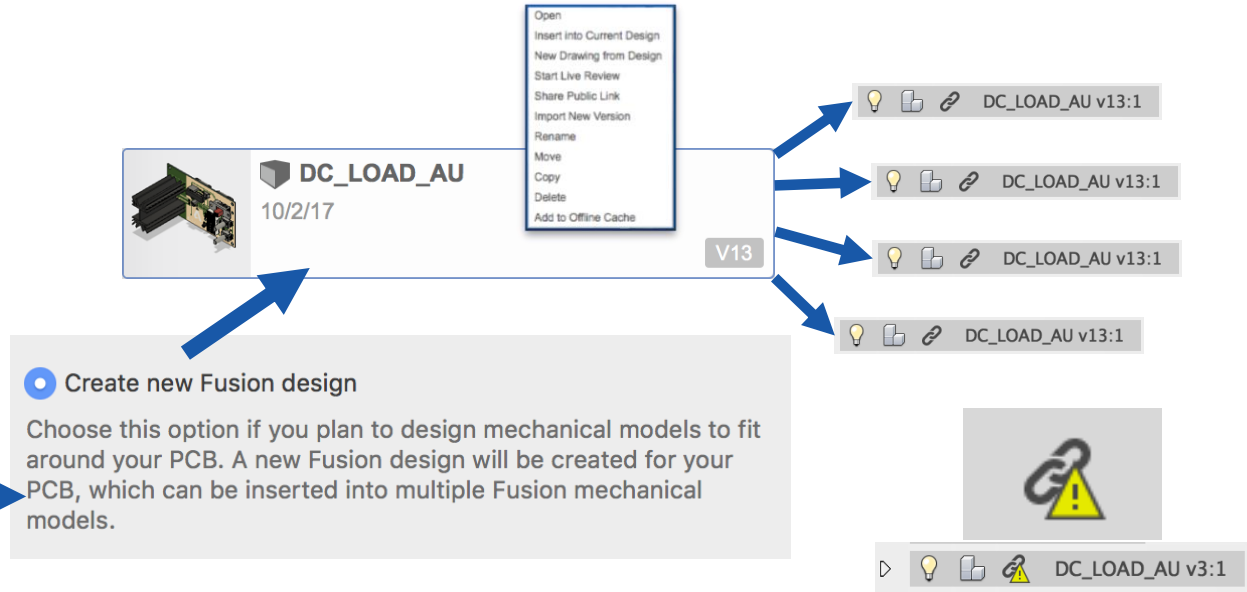

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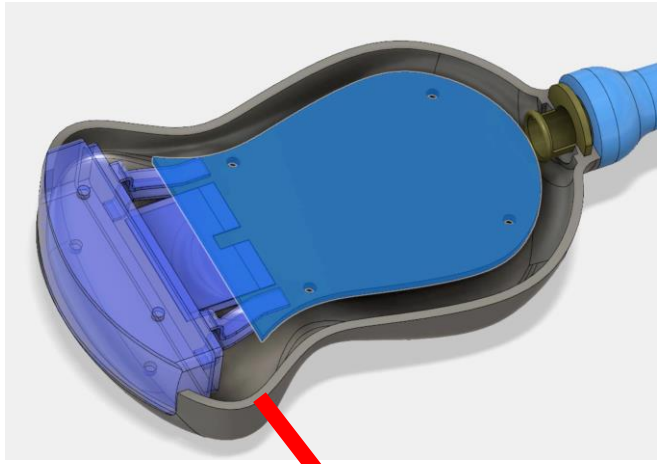

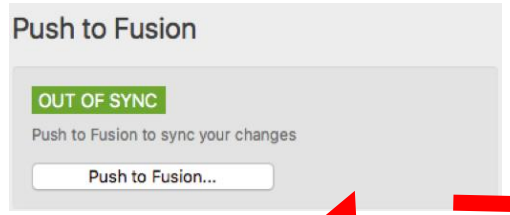

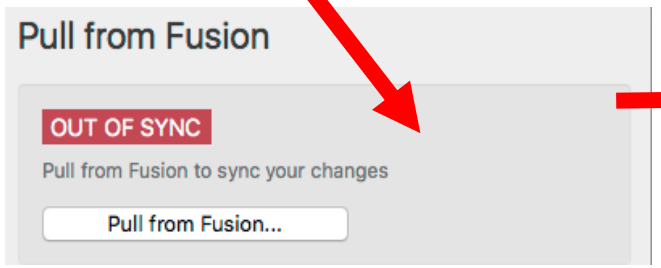

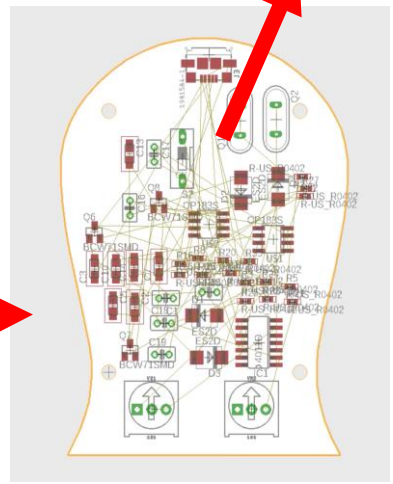

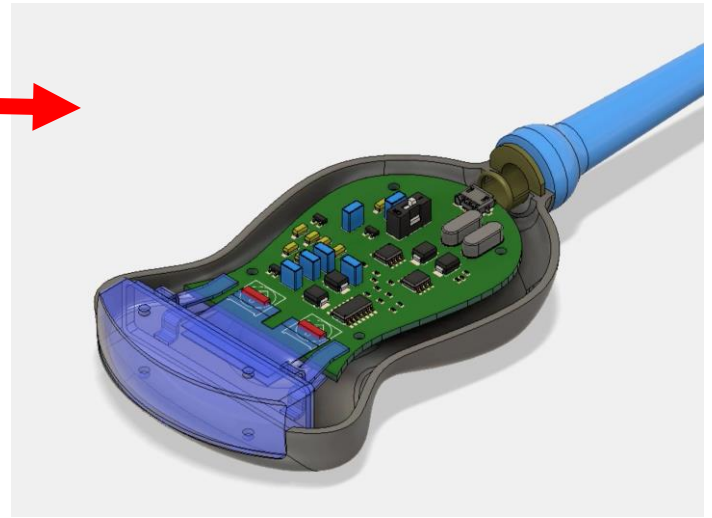

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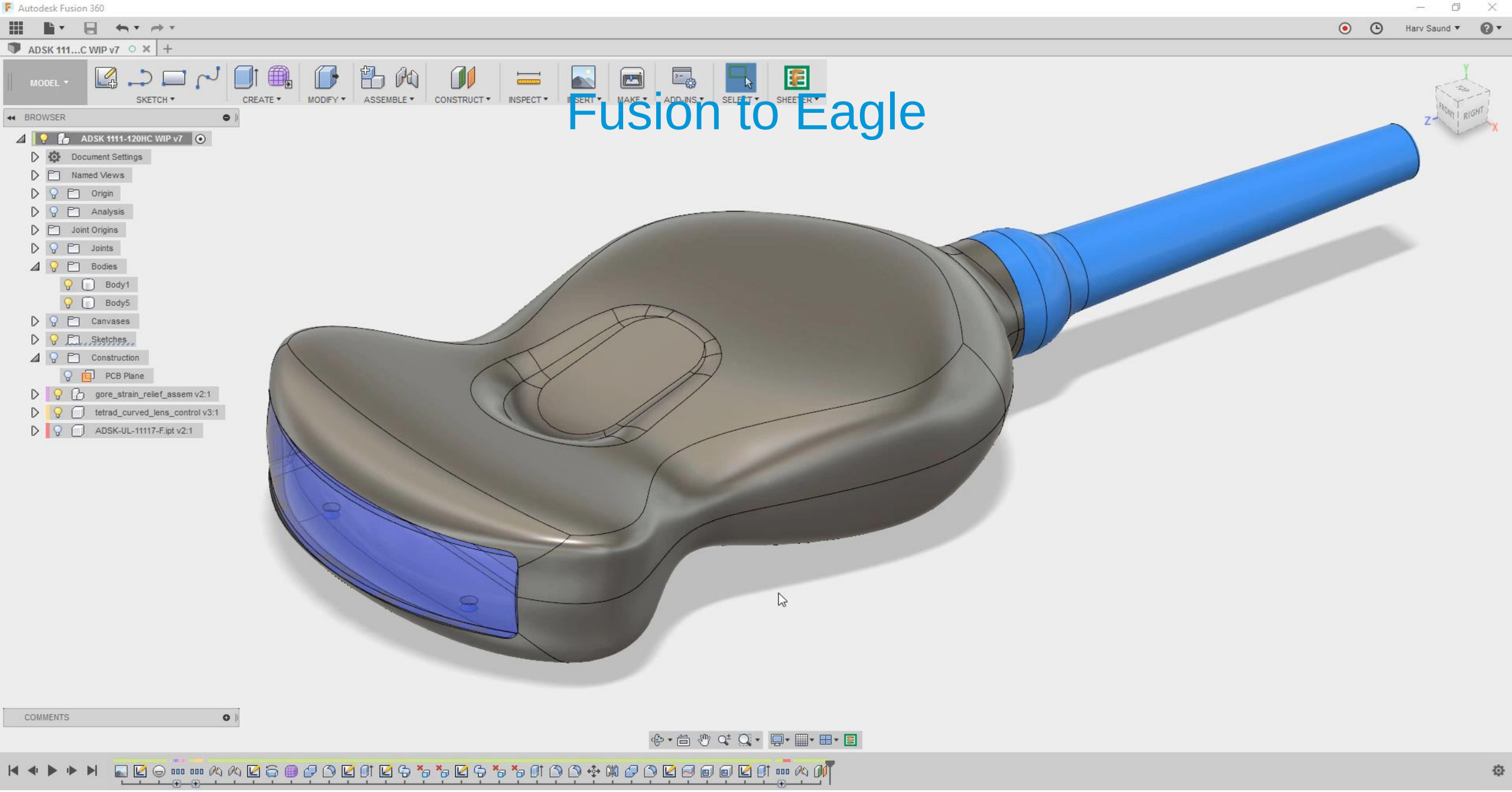

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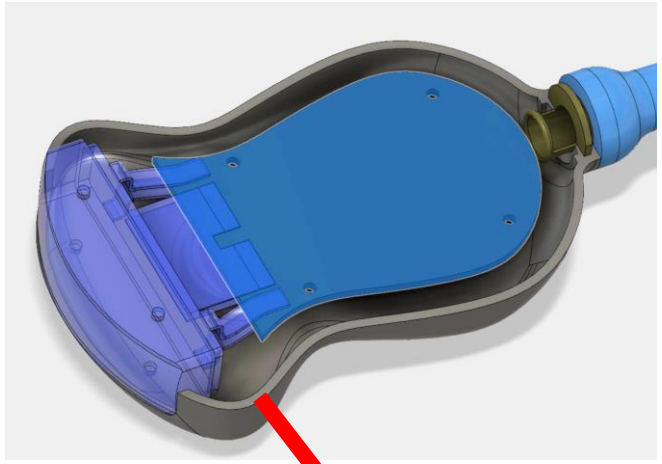
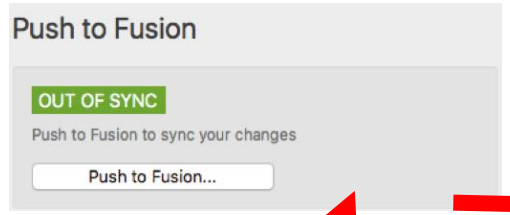
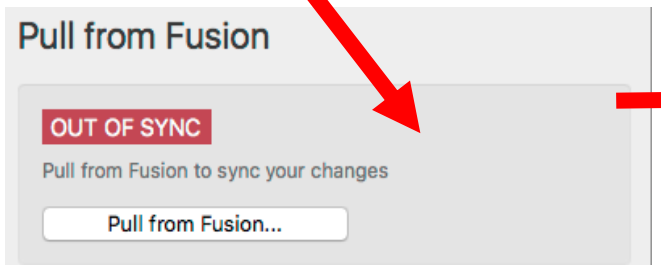
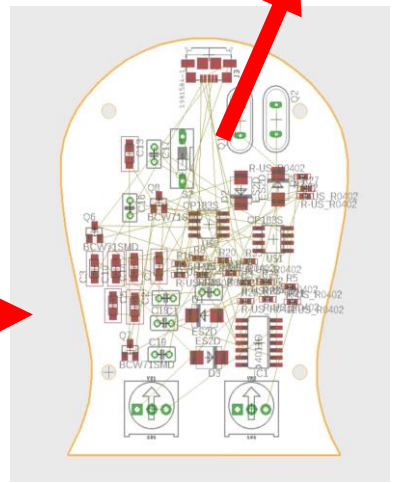
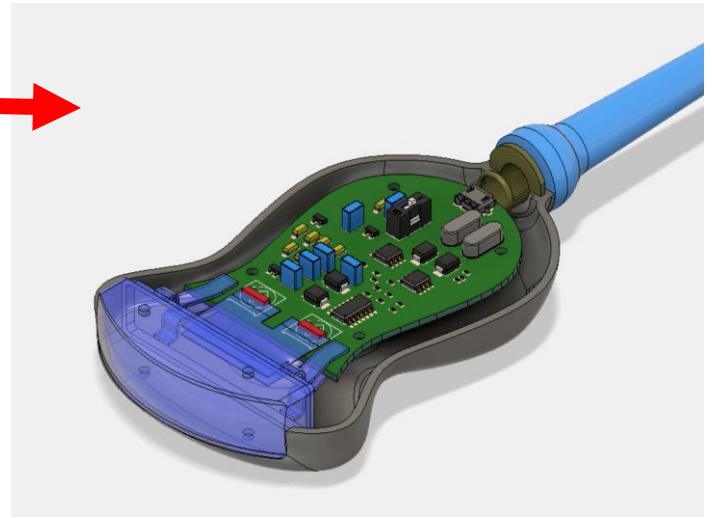


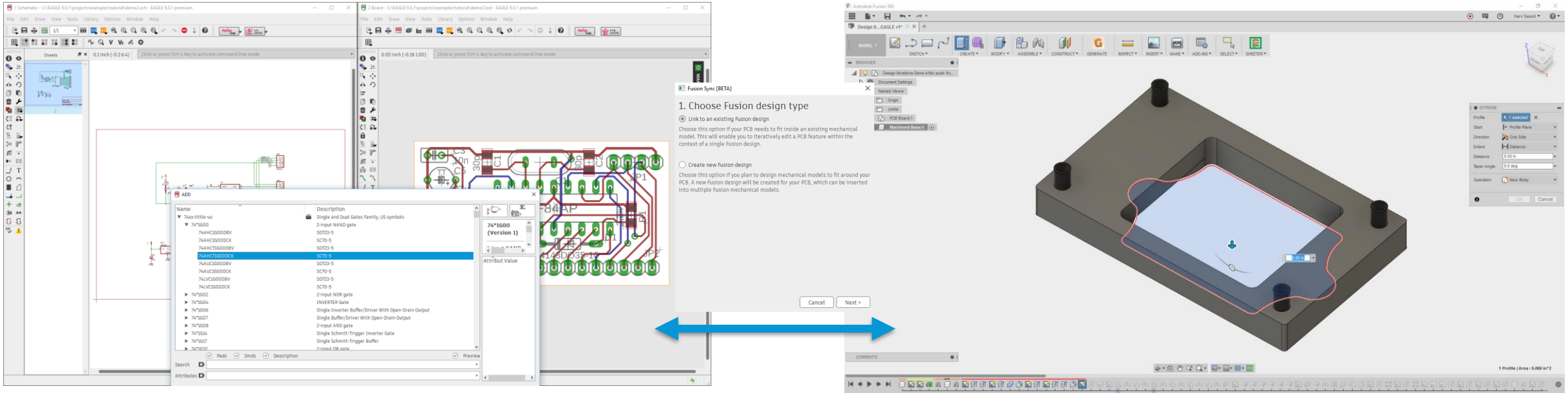


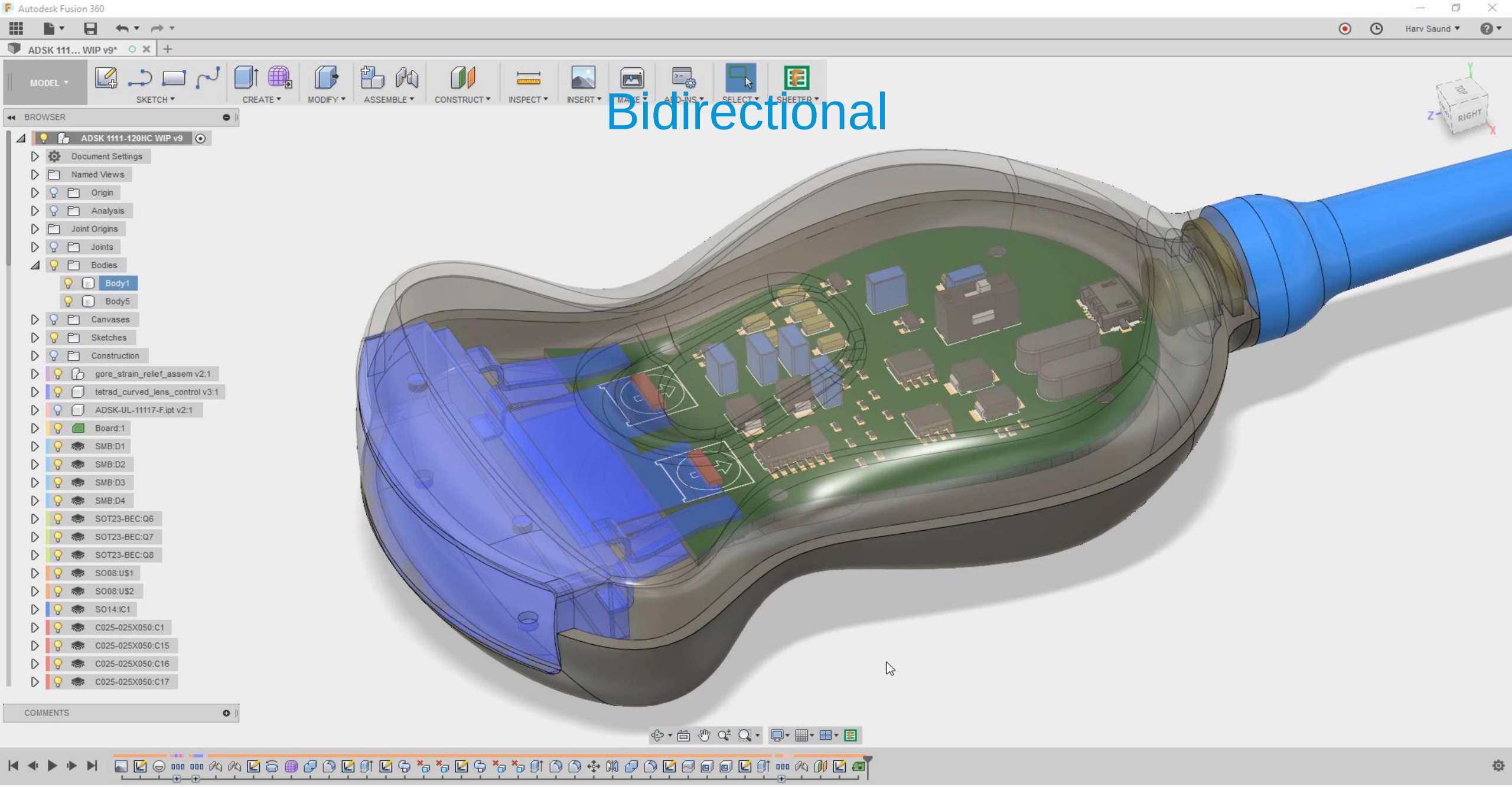




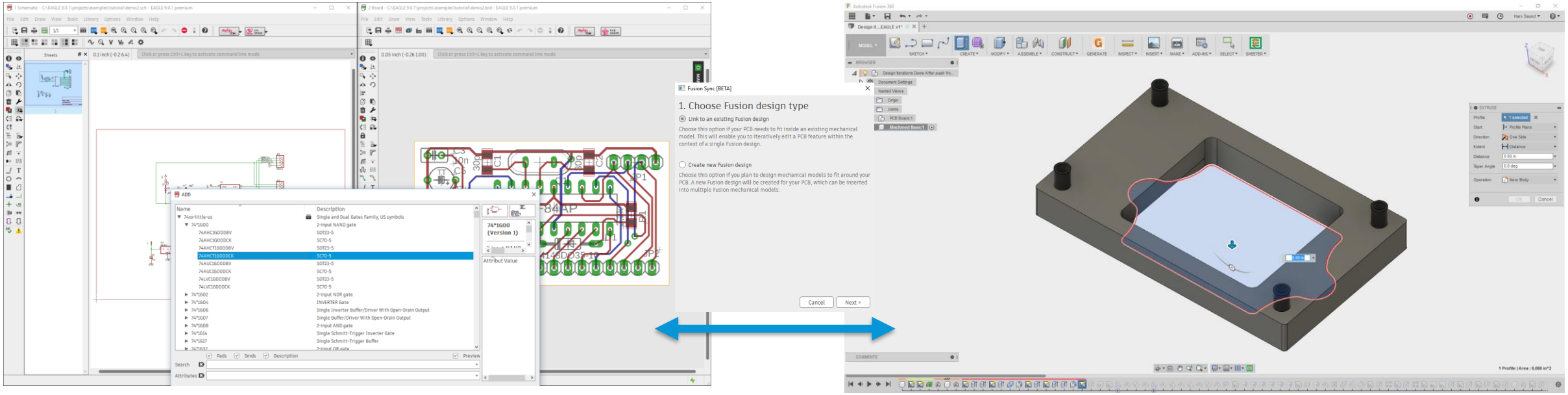


Bidirectional



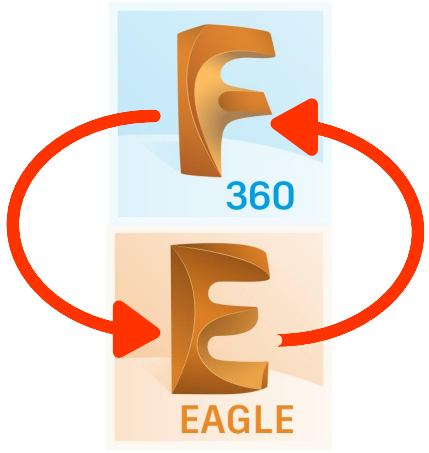

Autodesk Fusion 360
ADSK 111... WIP v9*
Harv Saund
MODEL
SKETCH
CREATE
MODIFY
ASSEMBLE
CONSTRUCT
INSPECT
INSERT
SELECT
SHEETER
Bidirectional
BROWSER
ADSK 1111-120HC WIP v9
Document Settings
Named Views
Origin
Analysis
Joint Origins
Joints
Bodies
Body1
Body5
Canvases
Sketches
Construction
gore_strain_relief_assem v2:1
tetrad_curved_lens_control v3:1
ADSK-UL-11117-F.ipt v2:1
Board:1
SMB:D1
SMB:D2
SMB:D3
SMB:D4
SOT23-BEC:Q6
SOT23-BEC:Q7
SOT23-BEC:Q8
SO08:U$1
SO08:U$2
SO14:IC1
C025-025X050:C1
C025-025X050:C15
C025-025X050:C16
C025-025X050:C17
COMMENTS
RIGHT

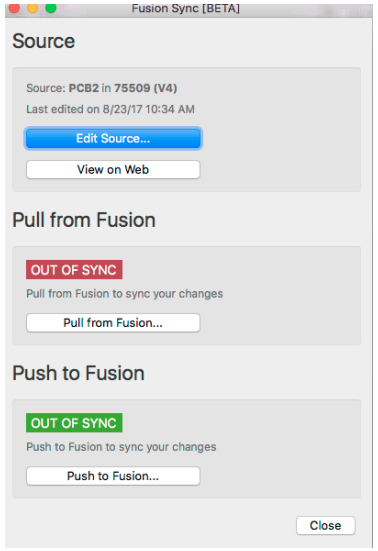
Bidirectional

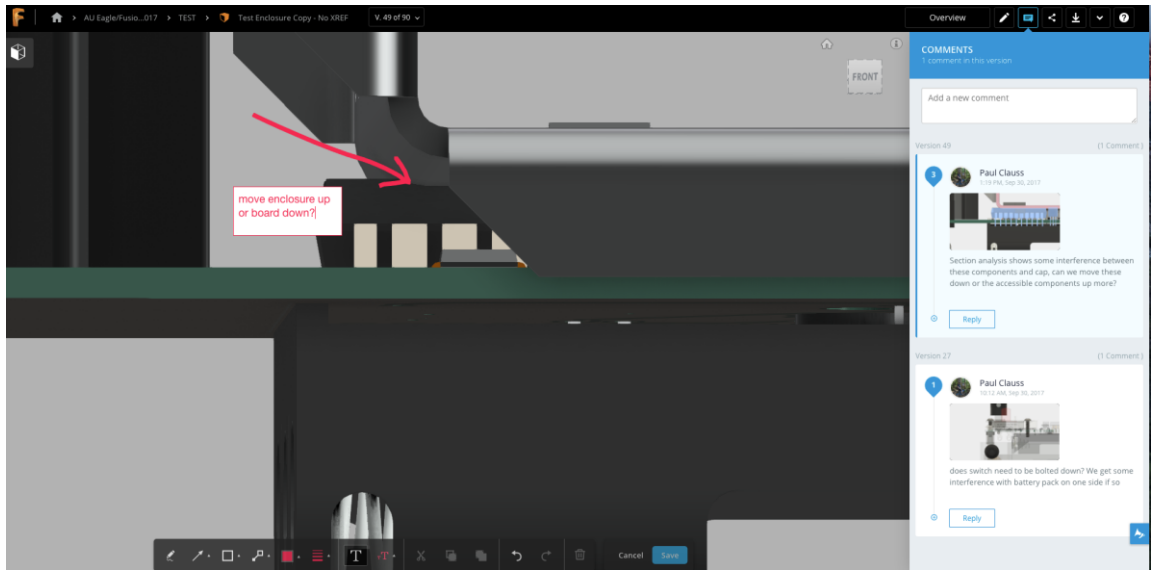


Summary

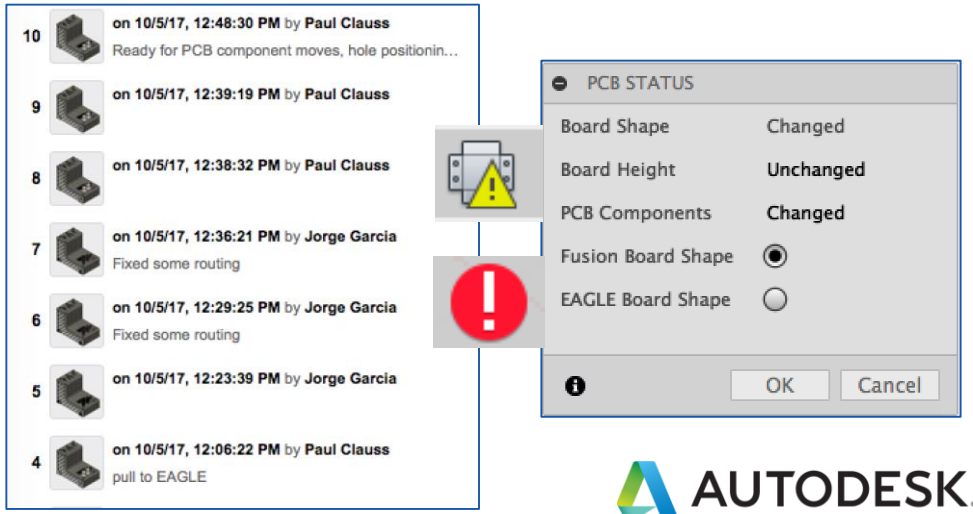
Advantages of integrated ECAD and MCAD







- The electrical, mechanical, and manufacturing teams can work with a single Fusion 360 design and EAGLE board file
- Less file conversions
- Communication! Comments!



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