Solar Panel Deployment Mechanical

Status and questions

Step 1 - Identify available digital assets

Status Update May 18, 2022

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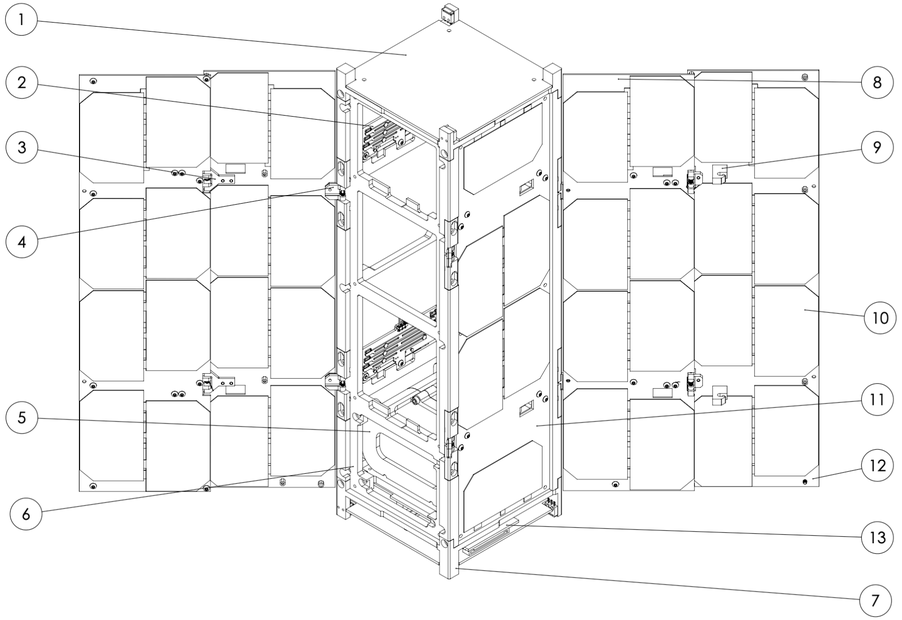
Tasks

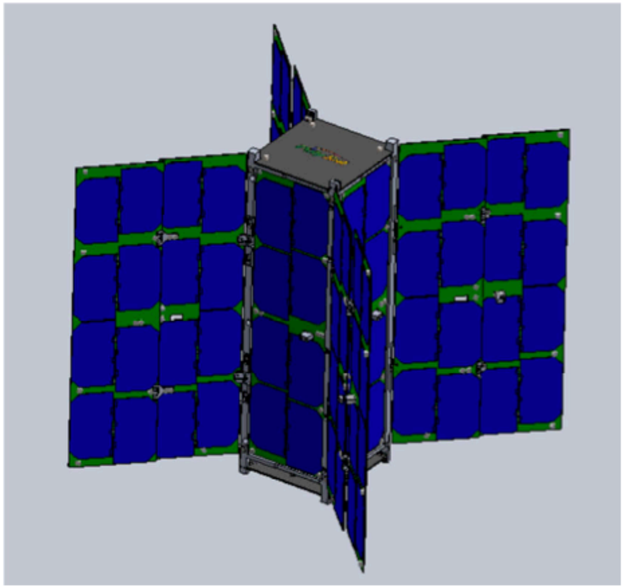
- Explore the SVN Golf-TEE
  -Find Solar and Mechanical Related Files
- Try to get an import into Fusion 360
- See what Solar Cell Research Was Done

TESSERACT - Popout Panel Design

Edgar Uribe & Vanessa Faune

Based on PolySat





Take inspiration from an existing design

Extremely Detailed Analysis and documents in SVN-Golf-Tee/Mechinical/From Luigi

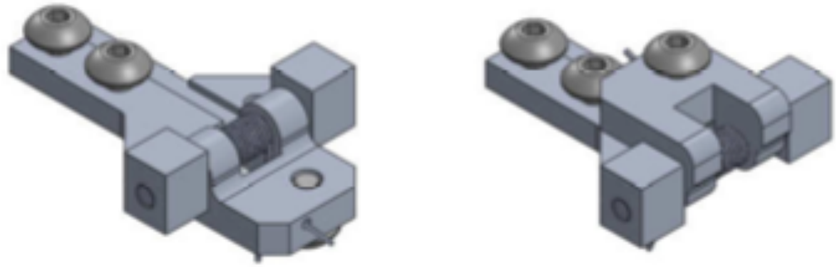
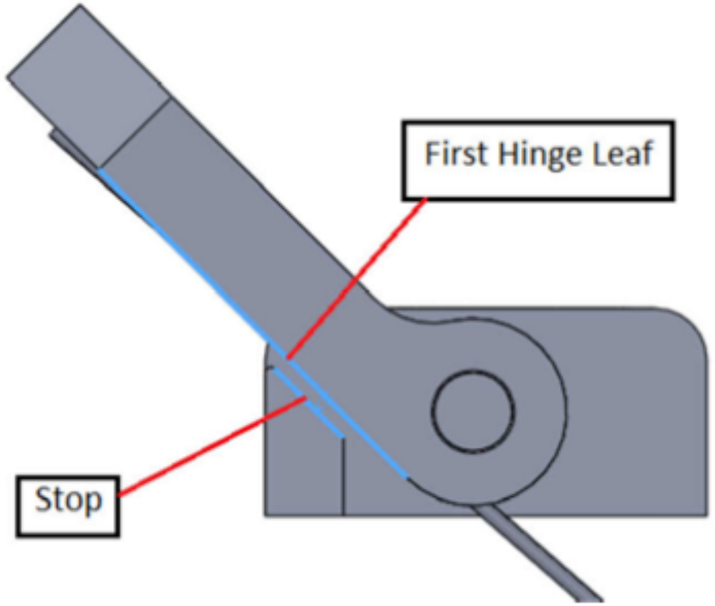


Figure 4.14 Second Hinge Assembly. Right is in stowed configuration and left is in deployed configuration.



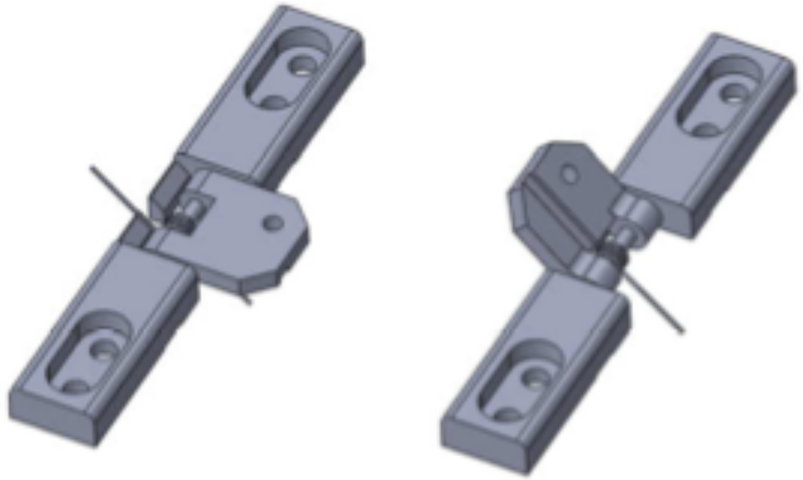
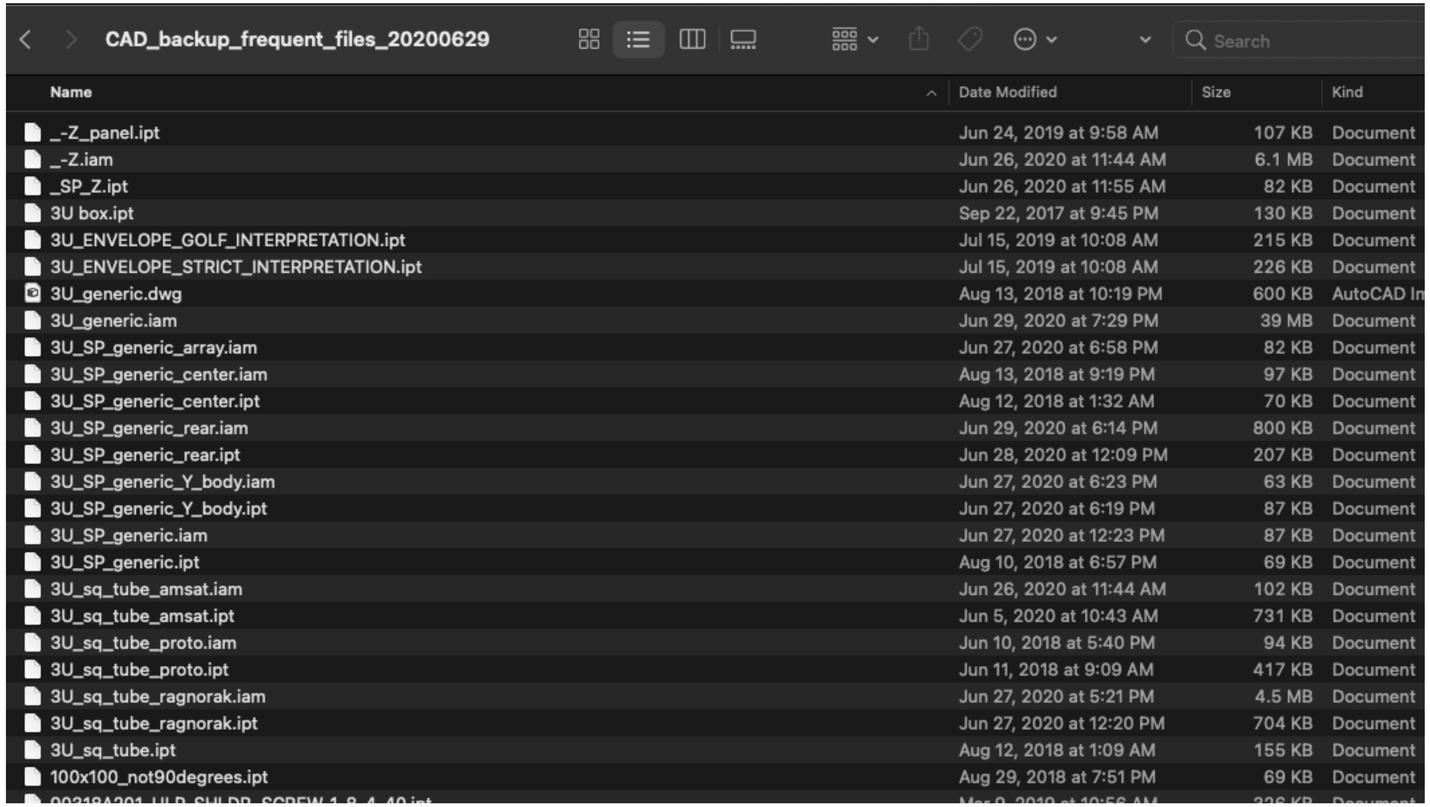


Figure 4.11 First Hinge Assembly. Left is in stowed configuration and right is in deployed configuration

CAD SVN- Golf-Tee/Mechinical/CAD BACKUP/ CAD_BACKUP….zip



ADOBE Inventor Files - 300 a month subscription - no Mac support

Some missing support files I had to search the SVN for

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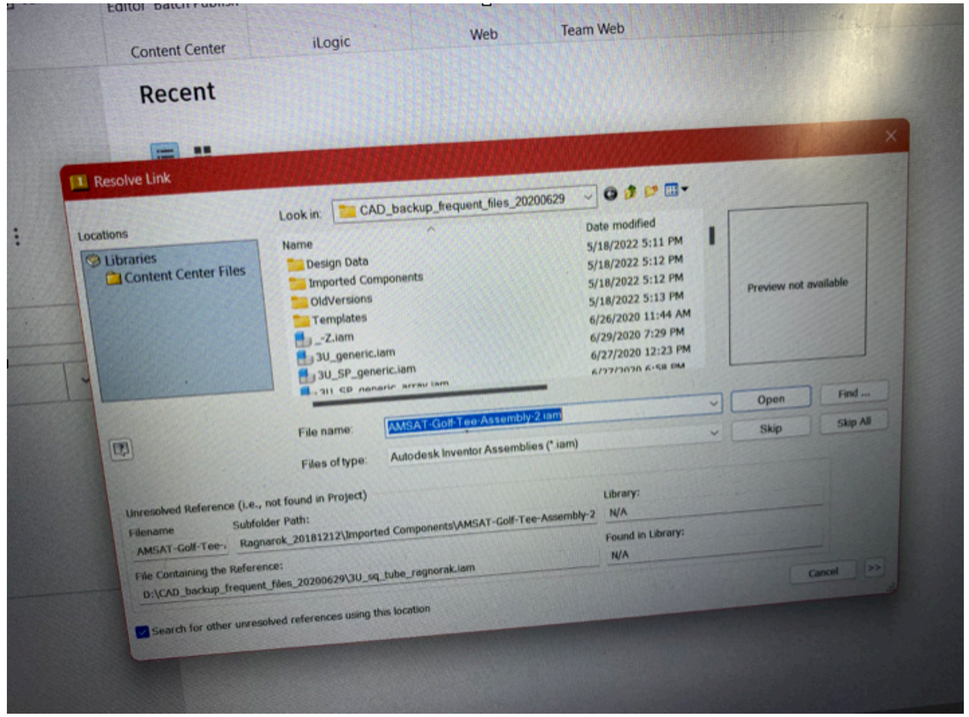
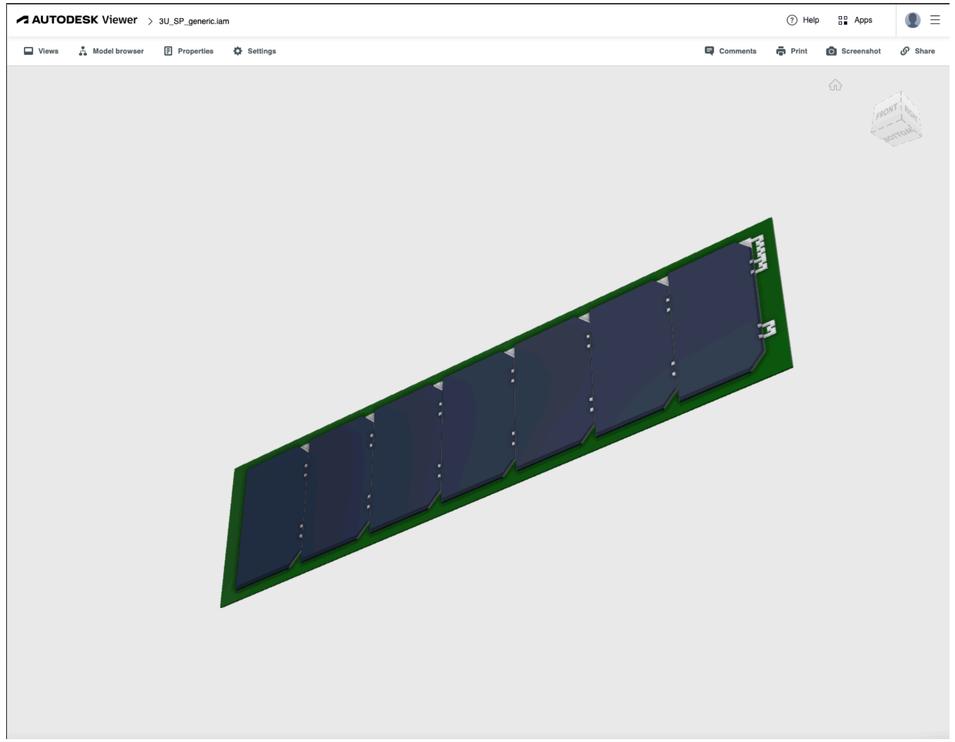
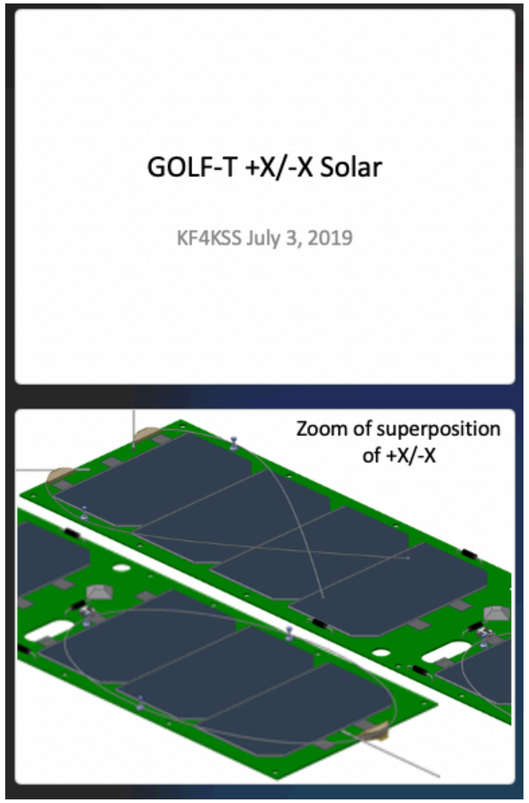


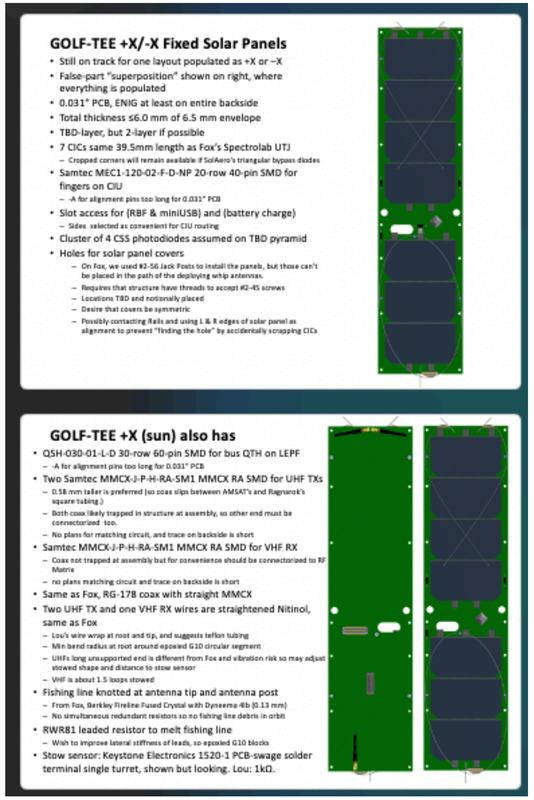


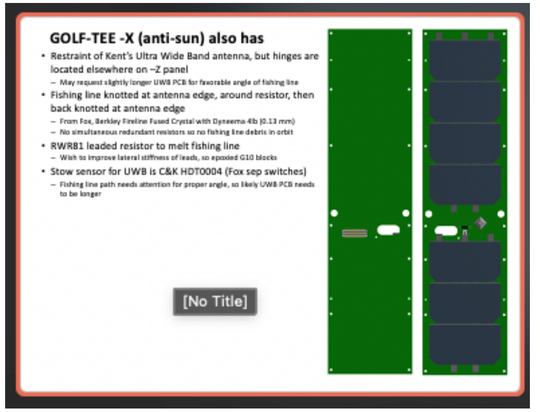
3U_SP_GENERIC.iam

GOLF-T +X/-X Solar

KF4KSS July 3, 2019

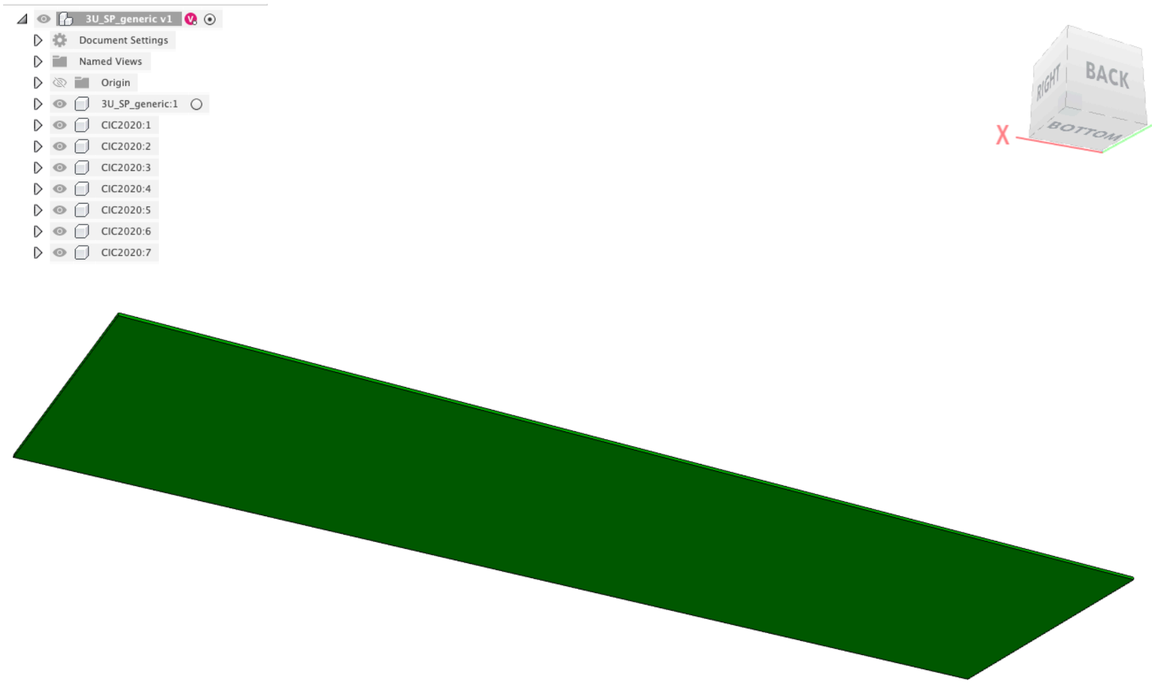


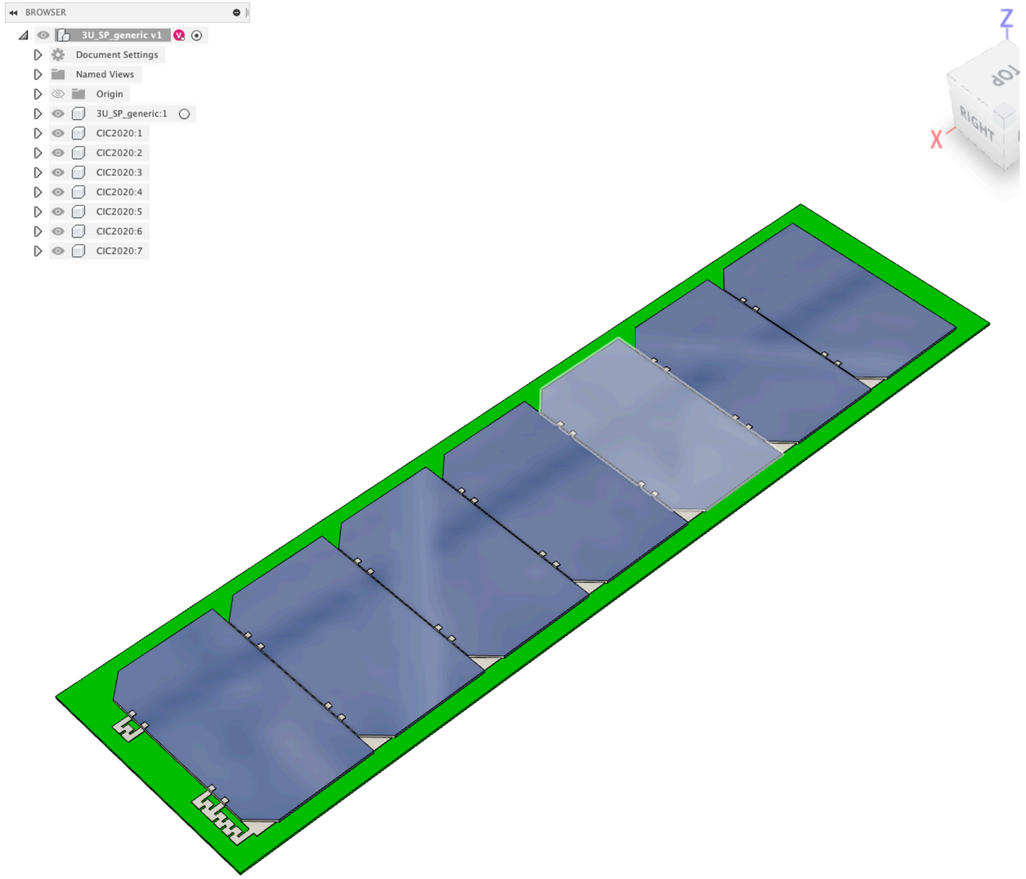




3U_SP_generic.iam

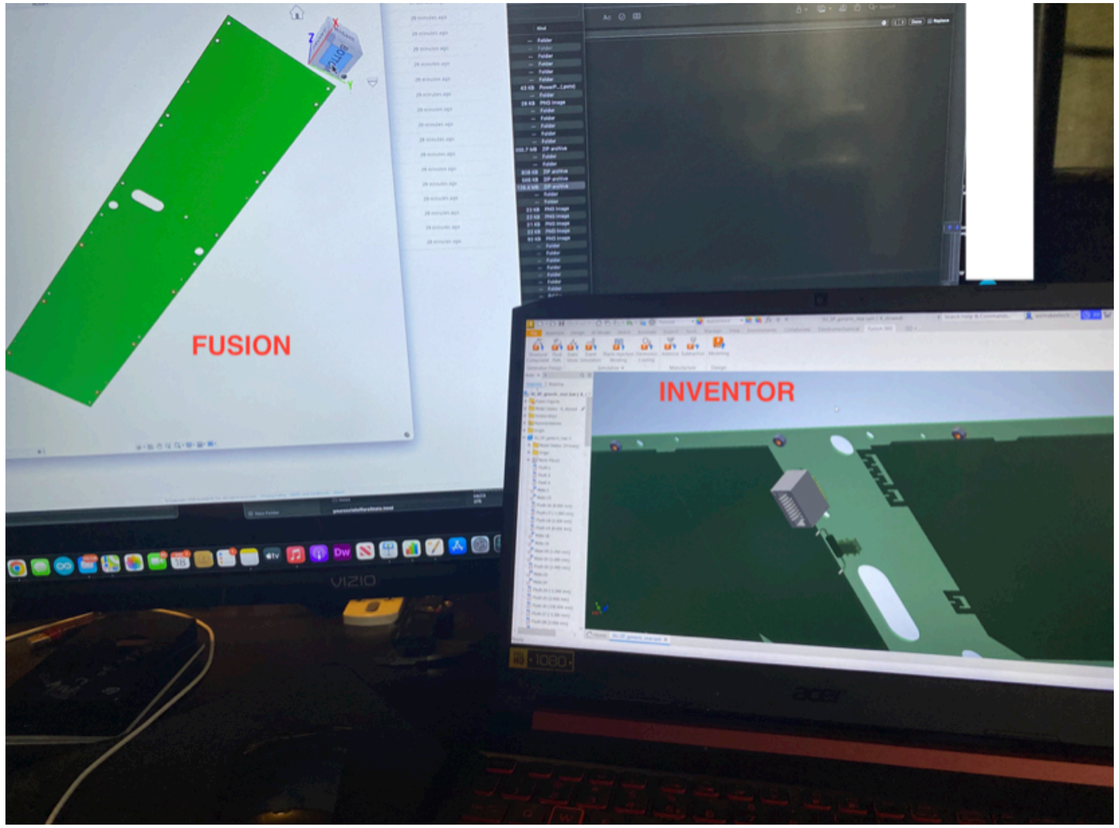
In Fusion360





3U_SP_rear.iam

Fusion Import vs Inventor Native



Why FUSION 360?

Relatively Inexpensive Monthly
Compatible with Many Technology Stacks
Includes CAM Computer Aided Machining
Free and Reasonable Monthly Cost Options
In great common use for DIY/MAKER and Industrial Use

FREE OPTIONS

Fusion 360 for personal, hobby use

Free for individuals who are doing hobby, non-commercial design, and manufacturing projects.

Free - qualification required

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Fusion 360 for startup use

Free for eligible venture-backed, angel-backed, or bootstrap startups that are less than 3 years old and have 10 or fewer employees.

Free - application required

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Fusion 360 for educational use

Free for qualifying students and educators who need Fusion 360 for individual use or institutions using in a classroom setting.

Free - validation required

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Questions

- What is RAGNAROK?
- SVN: Golf-tee/solar Panels Directory (Valid?) Do we have these parts?
- KF4KSS July 3, 2019 Solar Document is this still relevant - SVN Solarpanbels/concept/Golf-T XX_X Solar Mechanical 20190703.pptx
  - Do we have the cells?
  - Do we have inventor license?
  - Is it really necessary for the Solar Team to have imported copy of other mechanicals or is it possible conform to specifications?
  - Any recommended resources I should consider (PDF? Software?)
  - Is it smarter to fly something like the TESSERAK design where there are panels on more faces in case of emergency? Or is Guidance to be relied upon to point at sun?
  - Do we really save files in .ZIP inside of the SVN? This makes these files hard to search into
  - Should I make a Solar Panel 2022 in the SVN?
  - Rely on the structure of the PCB, or should the panel have a super fine frame that the PCB sits into that Mechanism and space frame attaches to (I.E. hinges directly on PCB or on a frame?

Next Steps

- Continue Resource Identification
- Continue Import Effort
- Does the team need anything from me?

Further

- Machine / 3D Print Stand In Example Parts
- Begin New Design File
- Order “prototype” solar panel board