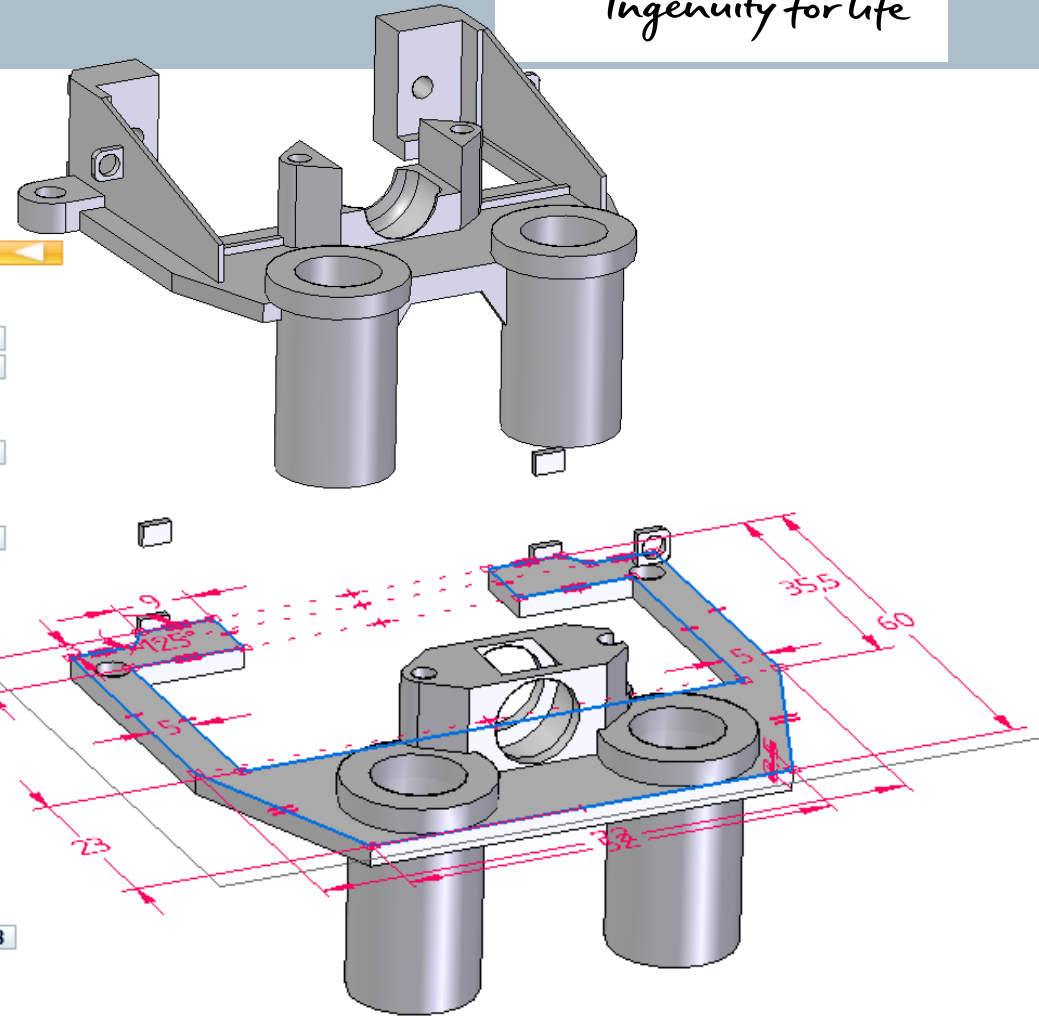
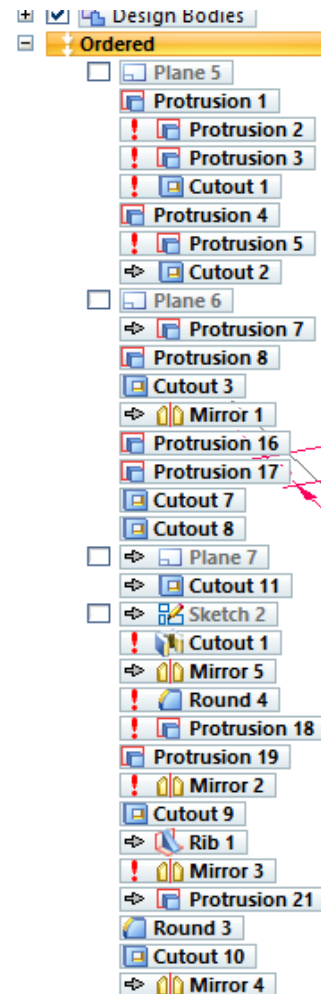


# CAD Design that delivers a Competitive Advantage

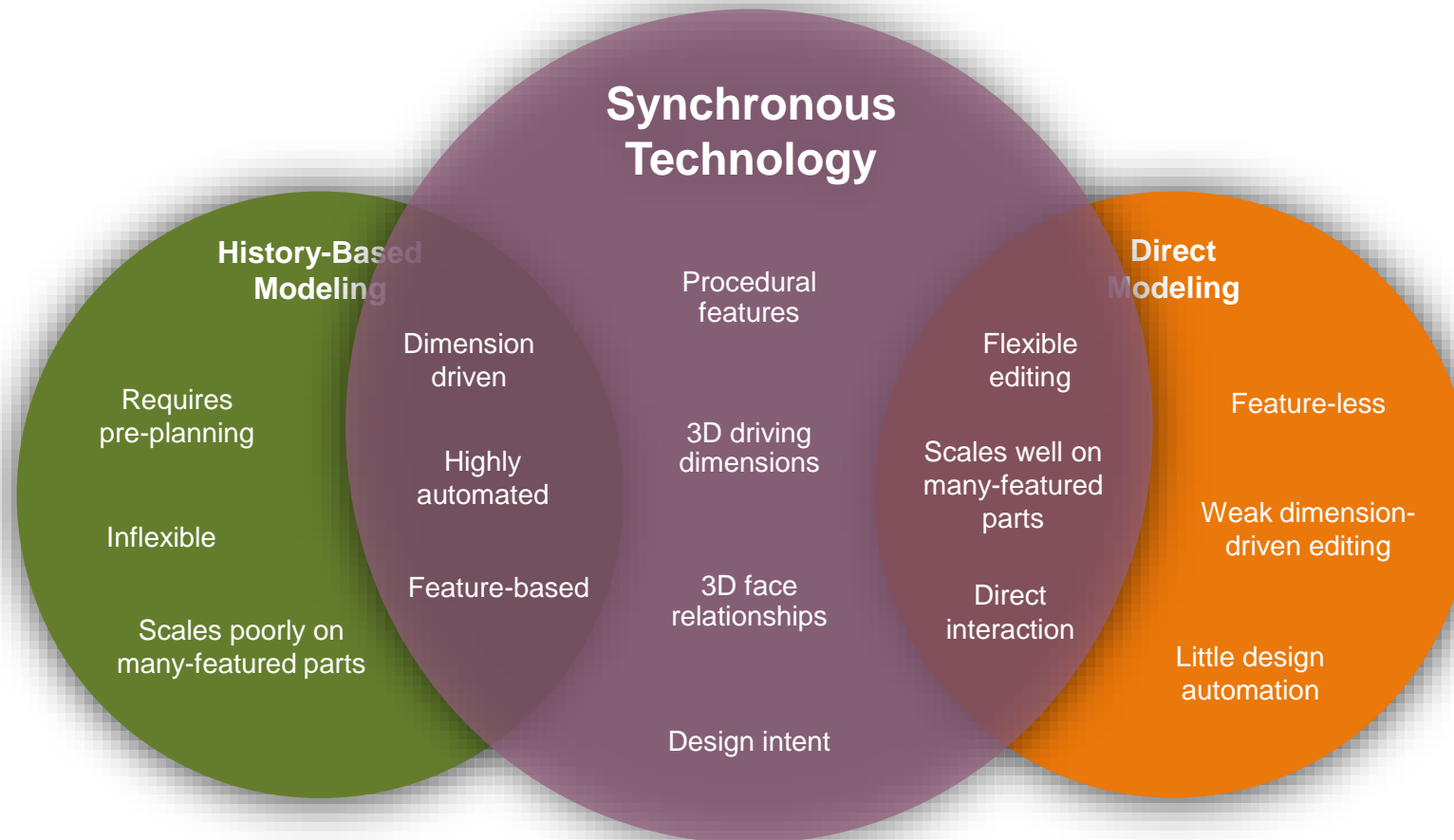
# Remove design constraints and design faster

Have you ever created a 3D model, only to have it completely fall apart when you had to make a seemingly simple edit to a feature early in the history tree?

- History-based (Feature by feature) 3D modeling has been around for decades, and most CAD users have just learned to accept its flaws as fundamental problems of 3D modeling that can't be easily avoided.
- Do you try to fix the model.... or just start over?



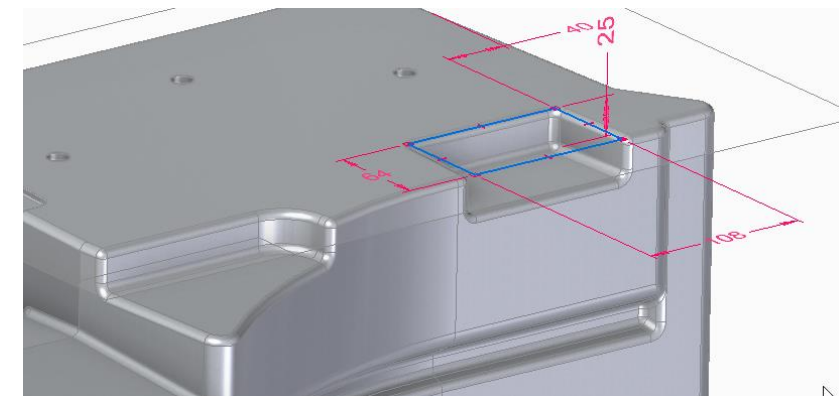
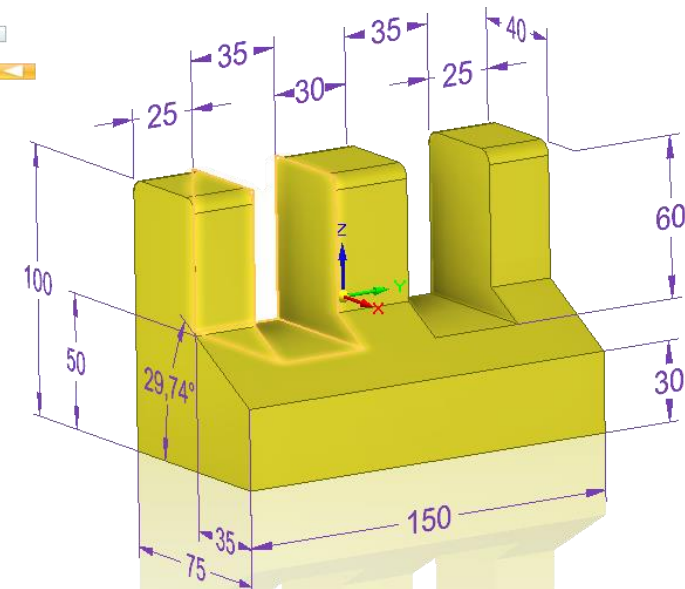
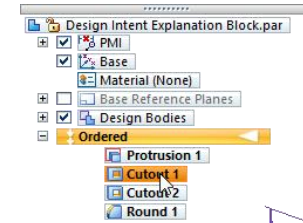
# What Makes Solid Edge Different?



# Remove design constraints and design faster

In history-based CAD, users must learn to “model correctly” to anticipate design changes that may occur in a product design.

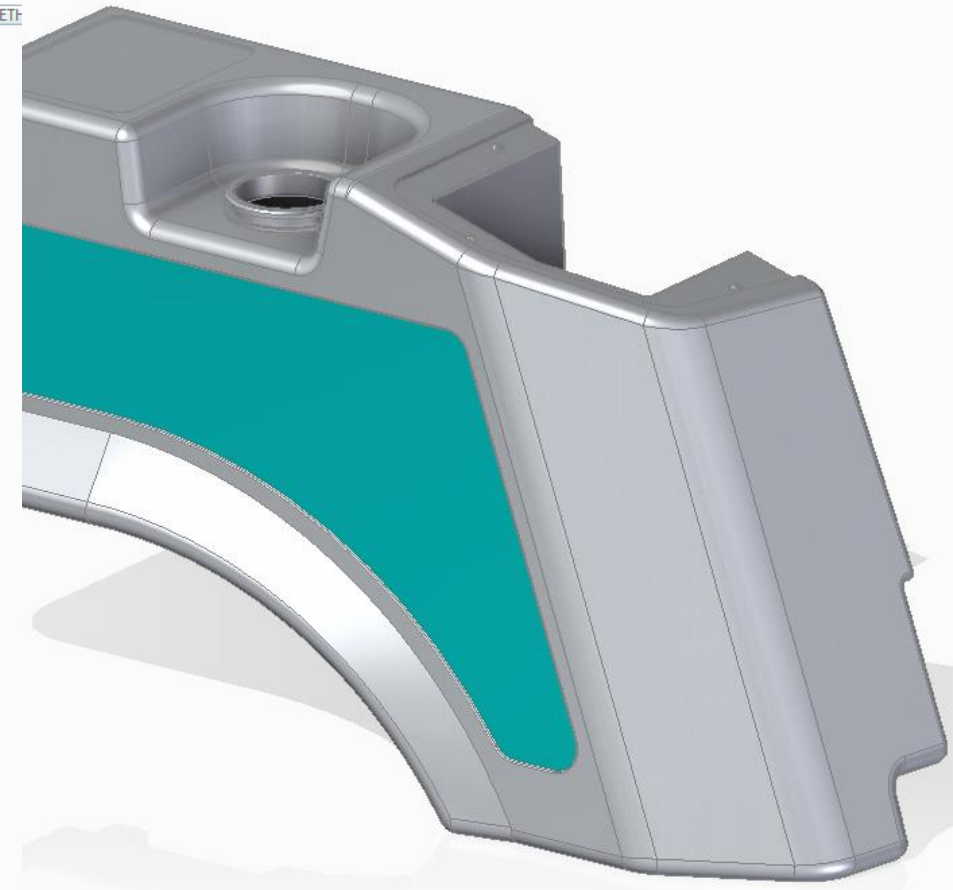
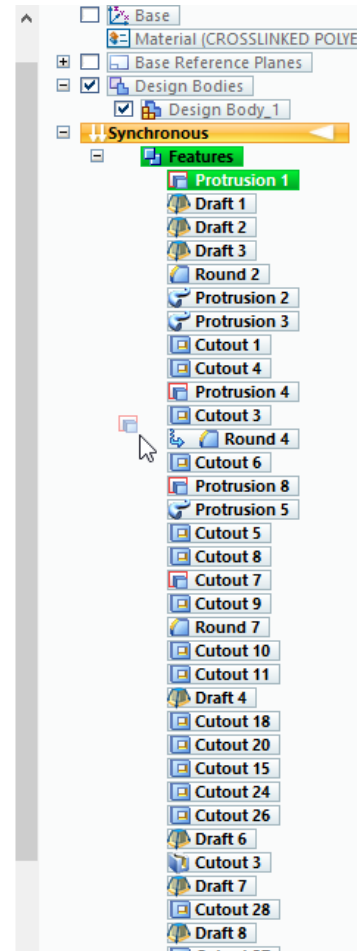
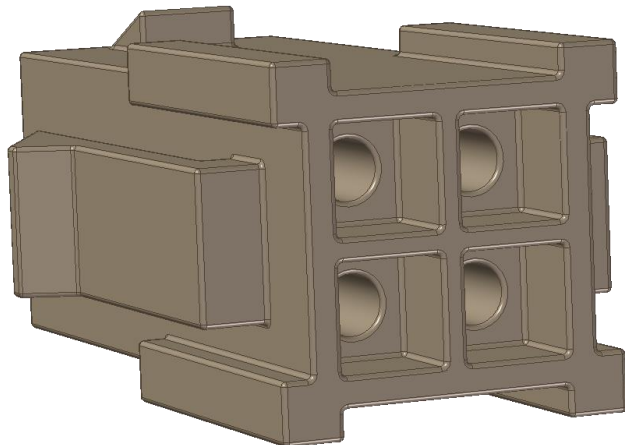
- Design intent must be considered in the design of a history-based model.
  - Design intent is hidden in the history of the features.
  - Design intent is inflexible in history-based models.
  - Design intent may be artificial.
    - Users often use the most convenient and fastest modeling techniques without consideration to downstream implications to change.
    - Constraints used while modeling can cause undesired results later.
  - Design Intent can be difficult to decipher if you were not the originator.
  - Design Intent may change over time.





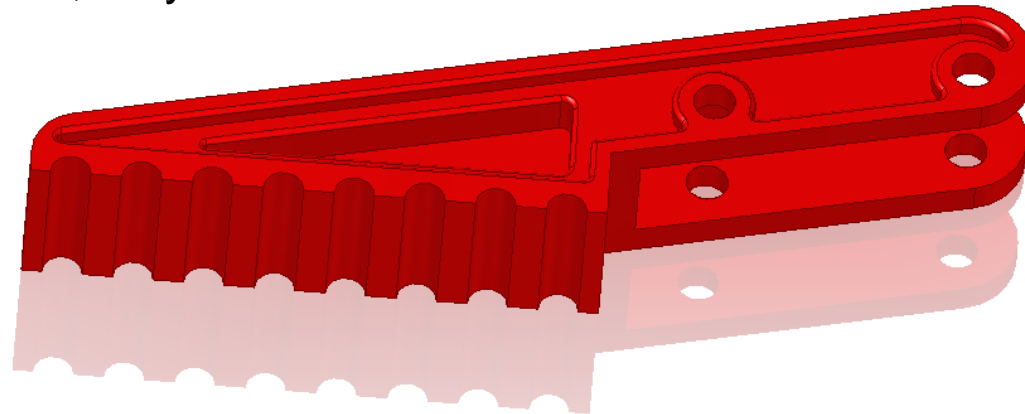
# Remove design constraints and design faster

- Synchronous features are “peers”, so edits are not forced to follow creation order.
  - Designer does not have to know how the part was built to edit it.
- Direct interaction with the model rather than through a 2d sketch.
  - Select a face or feature and move or rotate it directly



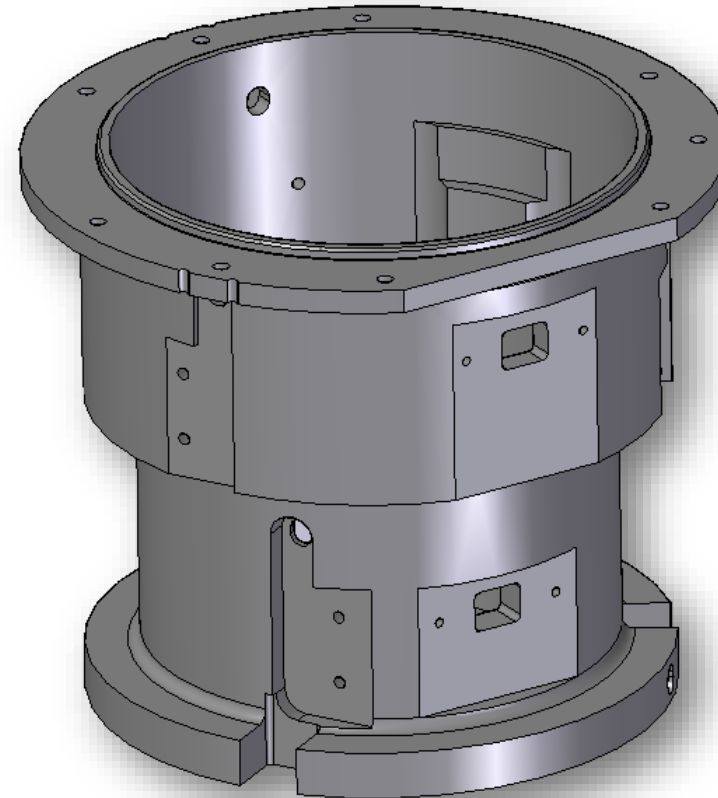
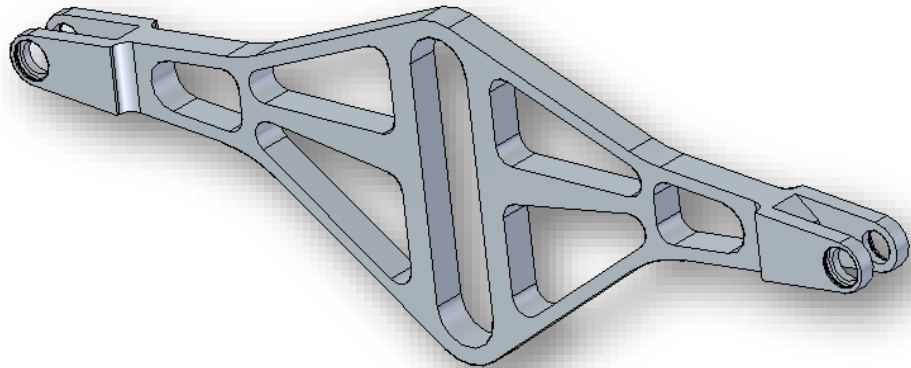
# Remove design constraints and design faster

- Prior to Solid Edge with synchronous technology, a “good modeler” was typically defined to be someone who could model a part with the least amount of feature failures after some kind of drastic model change.
- With synchronous technology the **method** used to get to the final solid model is not as important as having an accurate solid model at the end of the design.
  - With synchronous technology the **method** does not determine how the part may be edited.
- A designer can model faster when less thought is required about how the part may need to be edited later.
  - Less thought required to feature extents and locking to key-points to keep features "aligned".
    - Example: Holes can be simply dragged through a part.
- Likewise if keypoints are used to define depths, they do not create links.



# Remove design constraints and design faster

- Imported parts can be easily modified because they are treated just like native Solid Edge 3D models.
- Editing the model is not dependent on features in the model.
- Face selection works the same on native and imported models



THANK YOU!



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