TEXAS STATE
INGRAM SCHOOL OF ENGINEERING ®

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BOBCAT RACING

Goals

Develop a robust hierarchical system to easily track to look up all parts and components, as well as ensuring all CAD drawings are up to date and organized.

Why is this it important?

- Supports Documentation and Compliance
- Facilitates Collaboration
- Version Control and Consistency
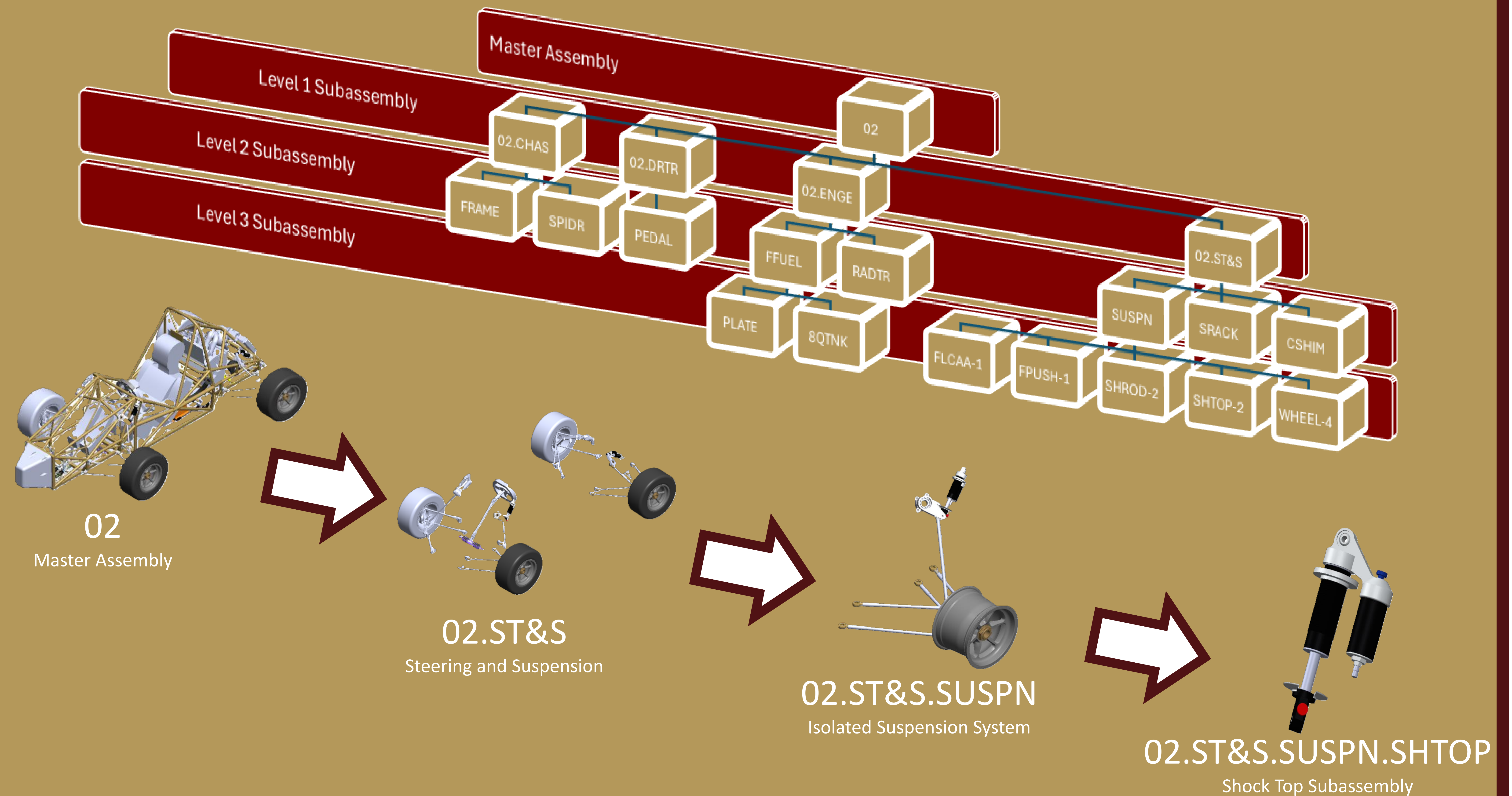- Streamlines Future Modifications and Expansion

Standardization – Sub Assembles

Standardization improves efficiency, data quality, and ease of cooperation in a project. In every industry, standardization allows for the reliable implementation of new parts; playing a vital role in the creation of a collaborative final product.

Our 7 Top Level Subassemblies:

- AERO – Aerodynamics and Panels
- CHAS – Chassis/Frame
- DRTR – Drivetrain
- ELEC – Electrical
- ENGE – Engine
- MISC - Miscellaneous
- ST&S – Steering and Suspension

Tree and visual example

Master Assembly
Level 1 Subassembly
Level 2 Subassembly
Level 3 Subassembly

02.CHAS 02.DRTR 02
FRAME SPIDR PEDAL 02.ENGE 02.ST&S
FFUEL RADTR SUSPN SRACK CSHIM
PLATE 8QTNK FLCAA-1 FPUSH-1 SHROD-2 SHTOP-2 WHEEL-4

02
Master Assembly

02.ST&S
Steering and Suspension

02.ST&S.SUSPN
Isolated Suspension System

02.ST&S.SUSPN.SHTOP
Shock Top Subassembly

HoloLens 2

HoloLens 2 is an Augmented Reality (AR) system made by Microsoft. The benefits of AR are:

- Gives students the ability to view their CAD creations before they implement them physically
- Fosters innovation by allowing designers to physically display their ideas in an easy, low-cost manner
- Avoids incompatibility problems in the future

Database

We incorporated our data to Excel and Microsoft Access. Future collaborators will be able to view and add to improve the Bobcat Racing database.

Meet the Team

Future plans for:
- PJ Nielson – Apprentice Gunsmith for JTA in Martindale, TX.
- Brennan Murray – Will begin working at Lockheed Martin in Fort Worth, TX
- Ado Kurugu – Will begin his full-time position at Flextronics in Austin, TX