



TACONVERSION

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Keddie

Inspiration

- Converting the bed of a truck into a spacious camper
- Ample storage
- Sizeable sleeping accommodations

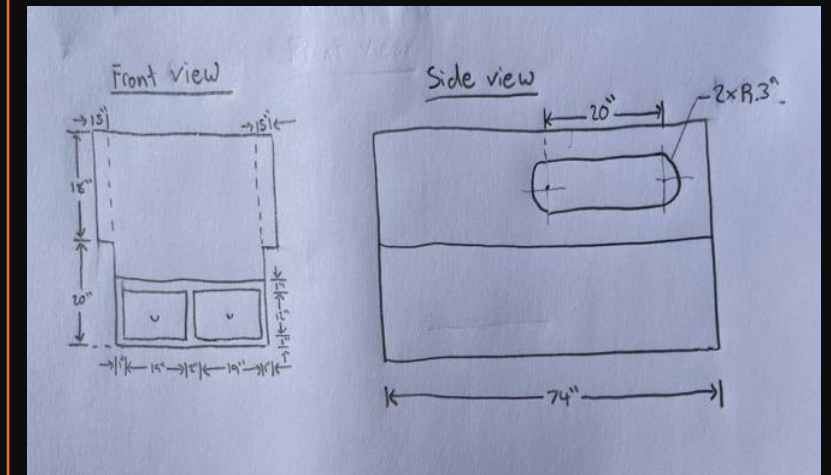
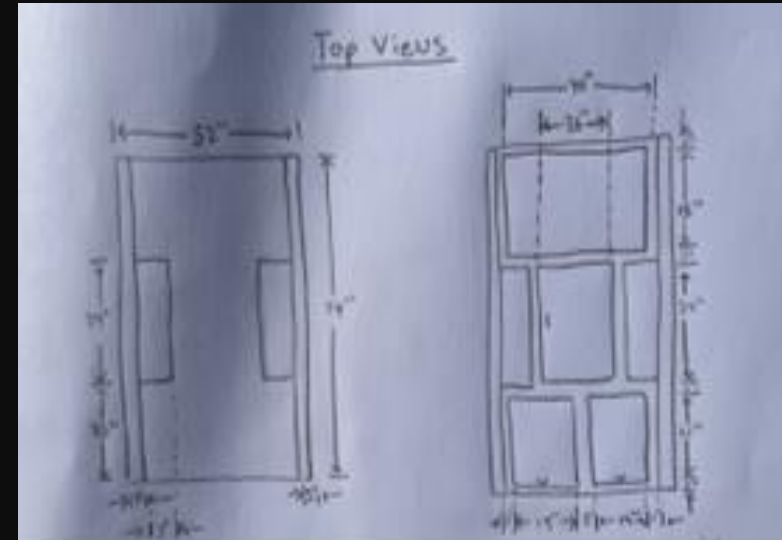


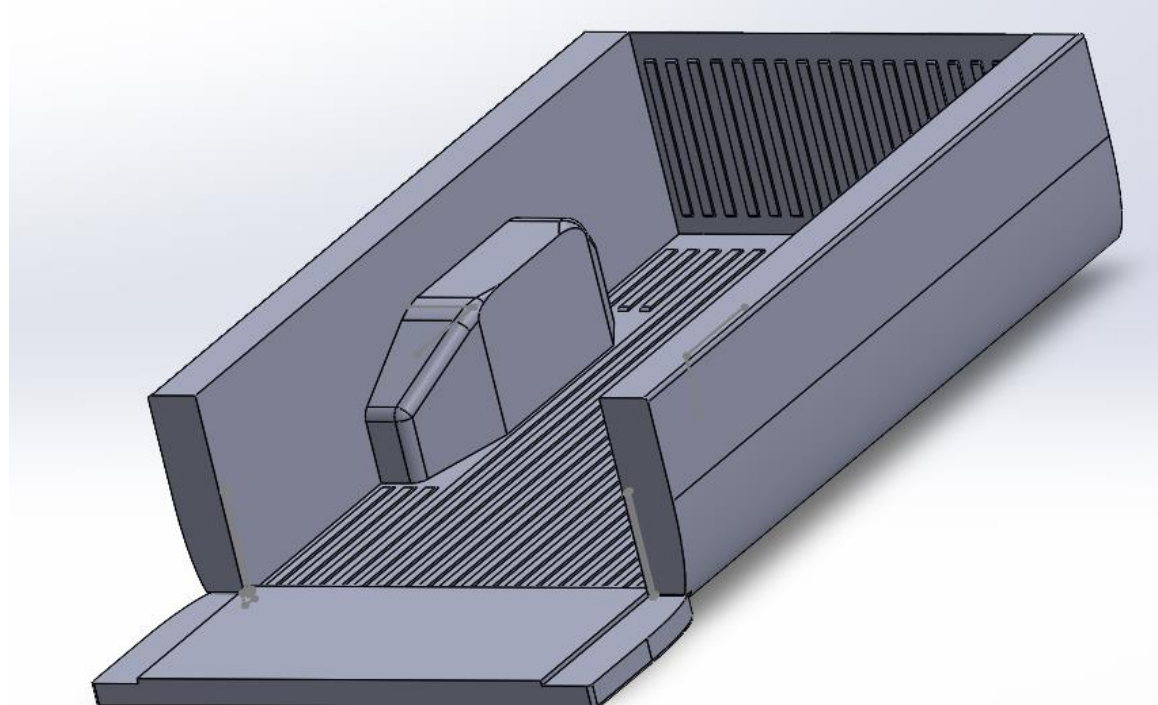
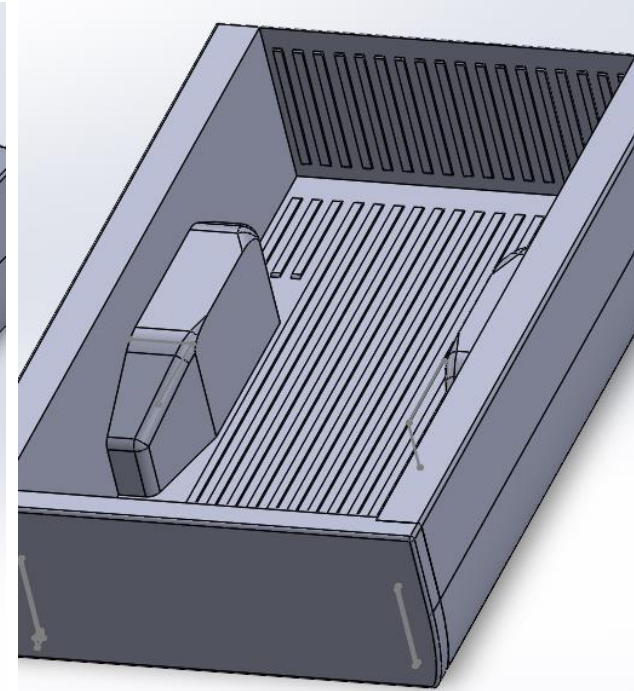
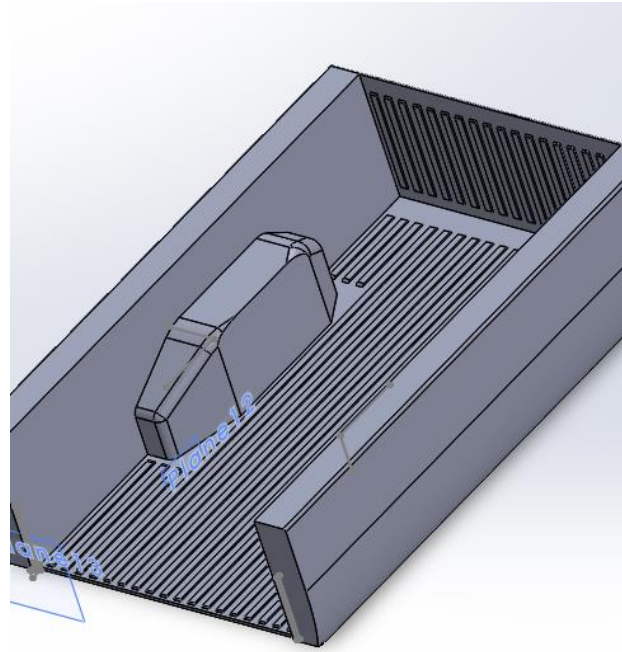
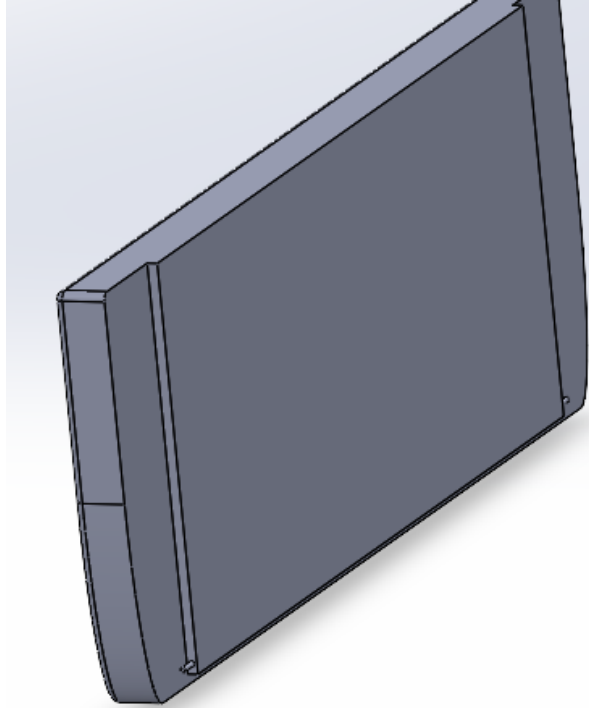
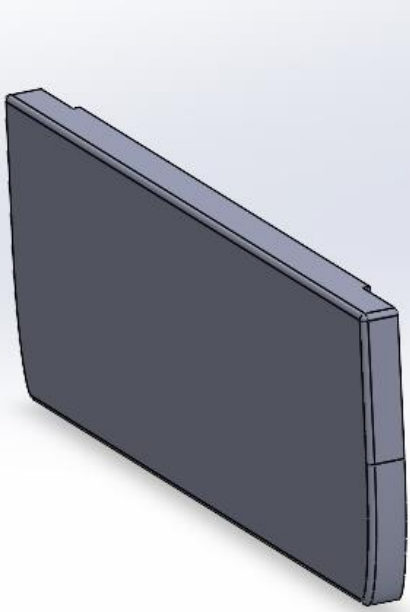
Proposed Design

- Original sketches and measurements taken on the right

Parts assigned being

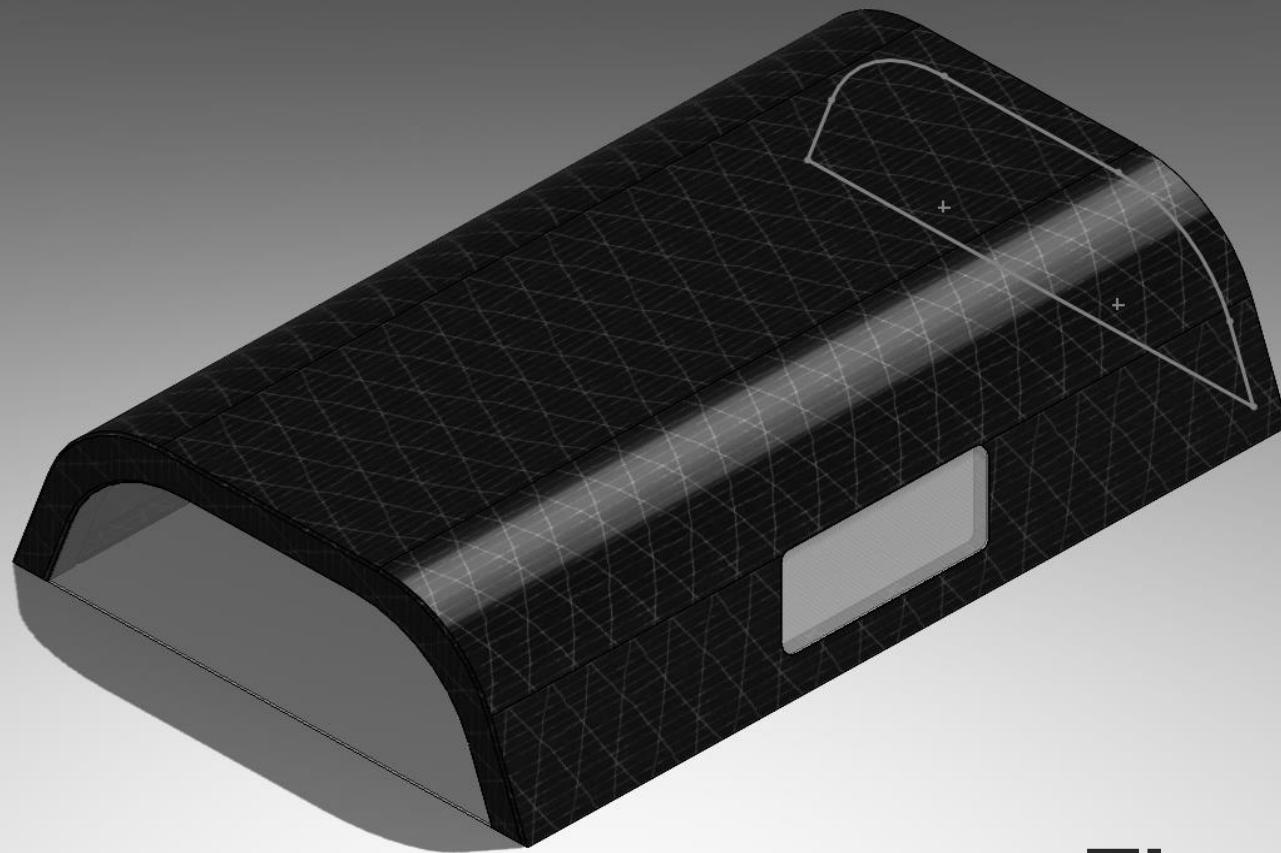
- Mitchell: Truck bed, Wheel Arches, Tailgate
- Oscar: Cab cover, Windows
- Derek: Hinges, Compartments, Frame
- Garrett: Drawers, Sliders, Screws





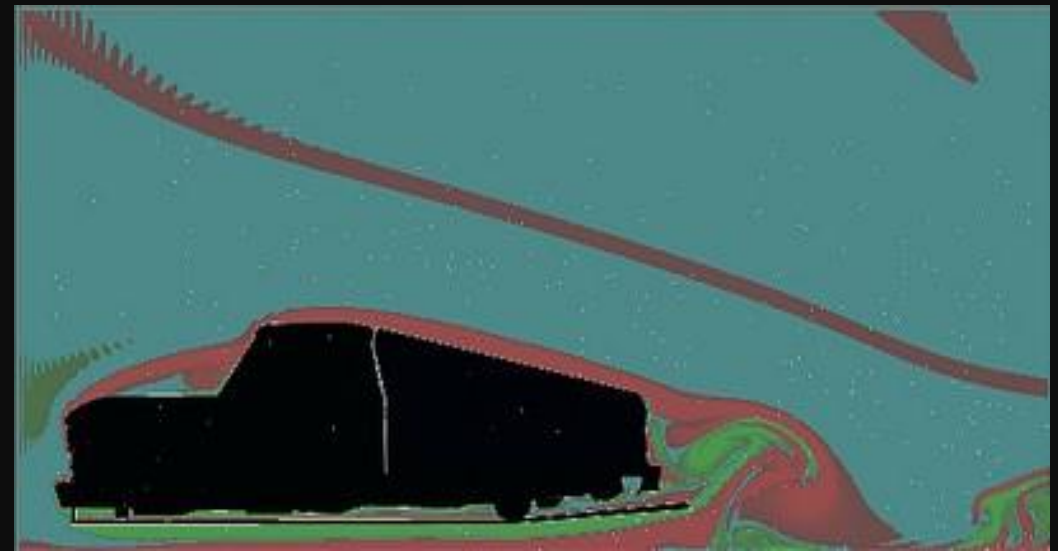
The truck

- tailgate and bed
- Complications being precise wheel arch measurements and hinged tailgate



The Cab Cover

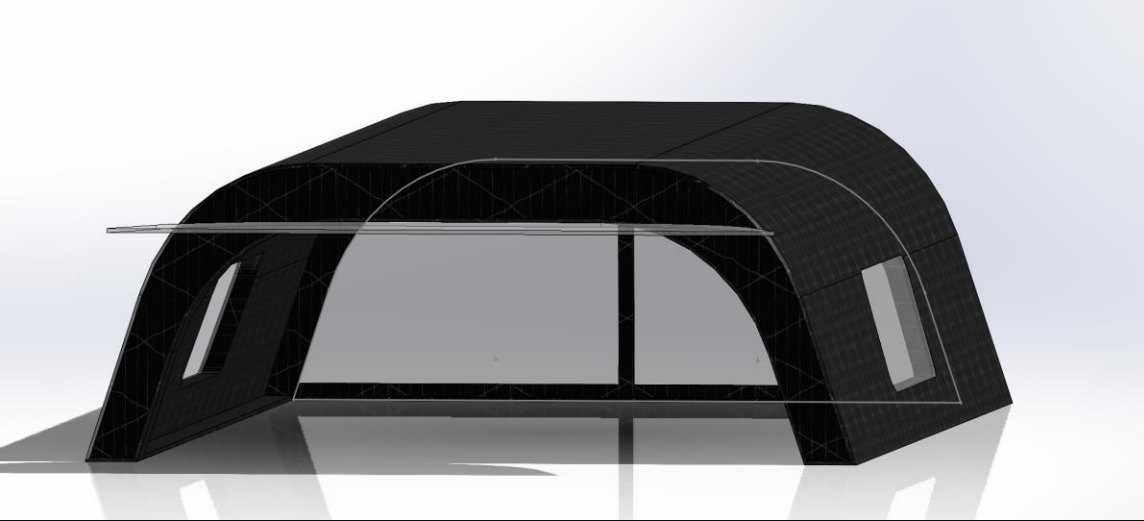
The Reference



2001 Ford Ranger XLT

- Midsize Pickup
- Rough
- Ideal Window Measurements
- Locations
- Not Always Available
- Ideal For Camping
- Very Detailed
- Improved Aerodynamics
- Not a 2014 Tacoma

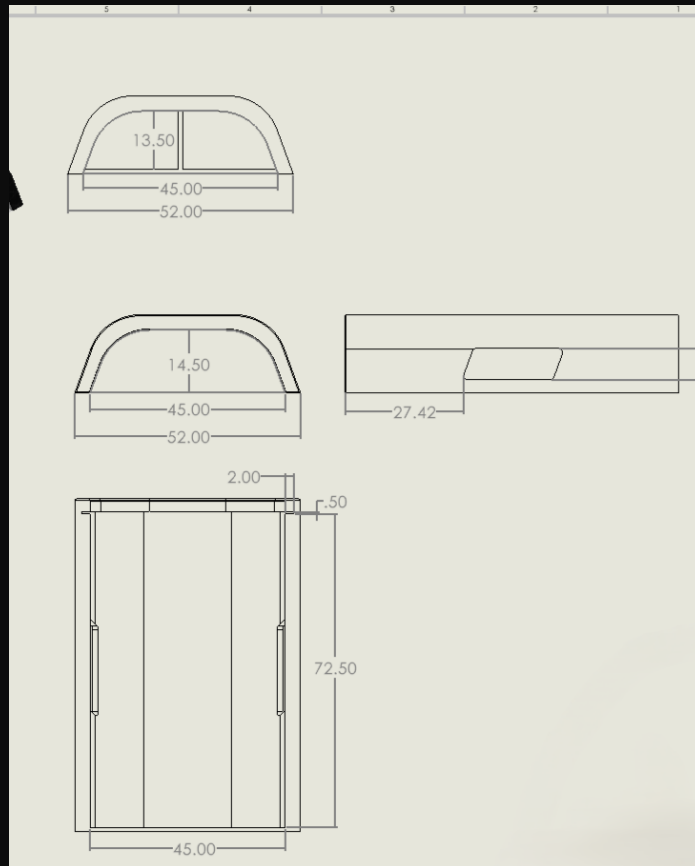




Reasons and Critical Aspects

- Better coverage from the elements
- Improved Privacy
- Carbon Fiber for lighter weight
- Windows to allow for better visibility
- Smaller side windows for improved privacy
- Improved Aerodynamics
- 20° angled side
- Interior
- Angled Windows
- .25" Glass
- 12" Fillet
- Maintain Structural Integrity
- Construction Line
- Deferent Thickness along the cab

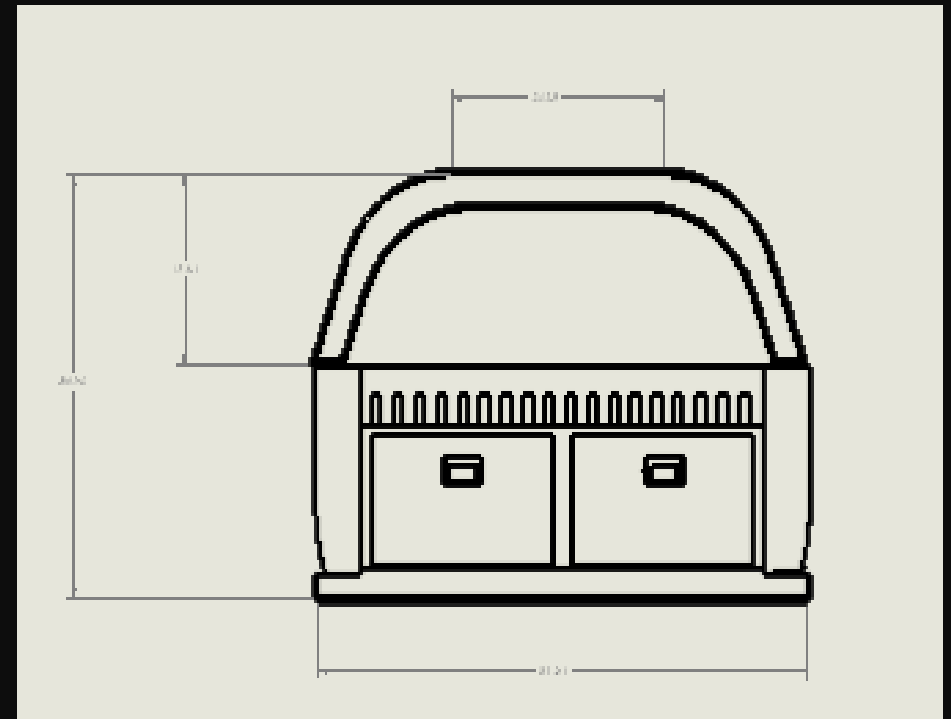




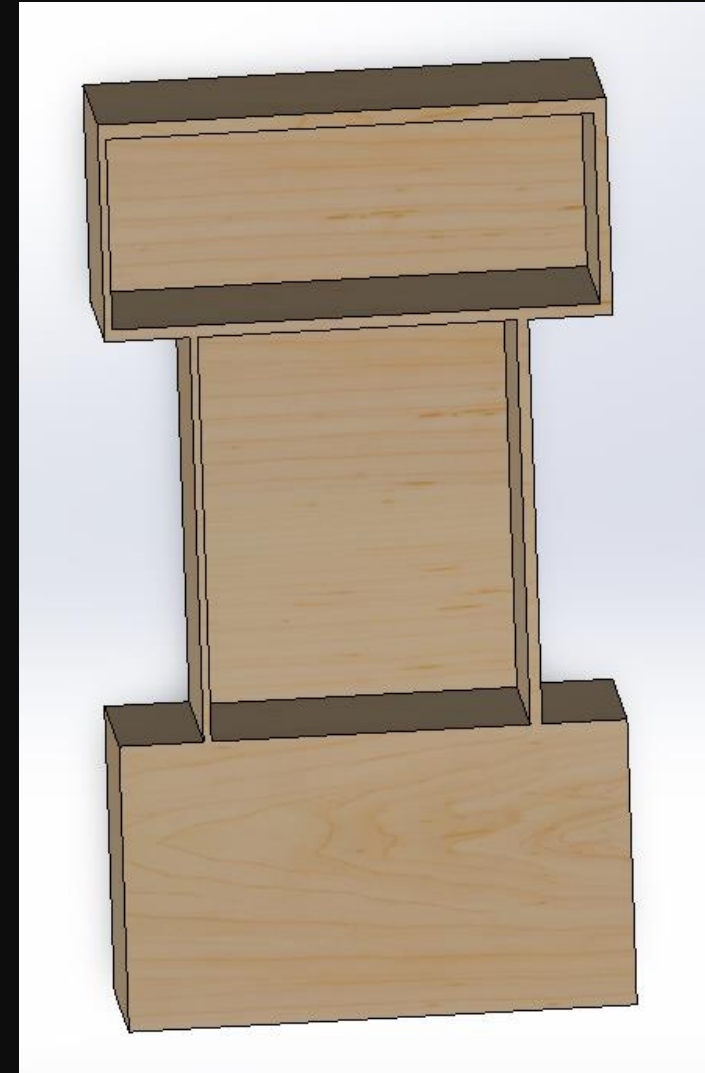
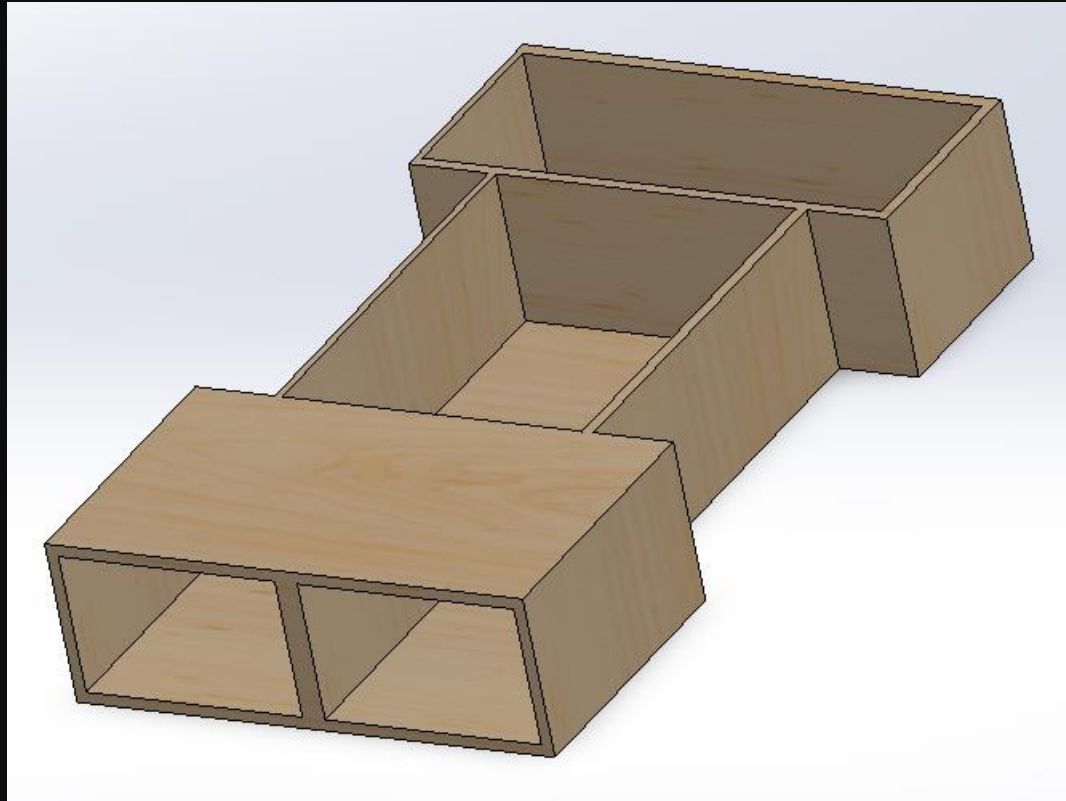
- Side Windows are different parts
- Interior extension to clamp to truck bed

Difficult Critical Aspects & Potential Improvements

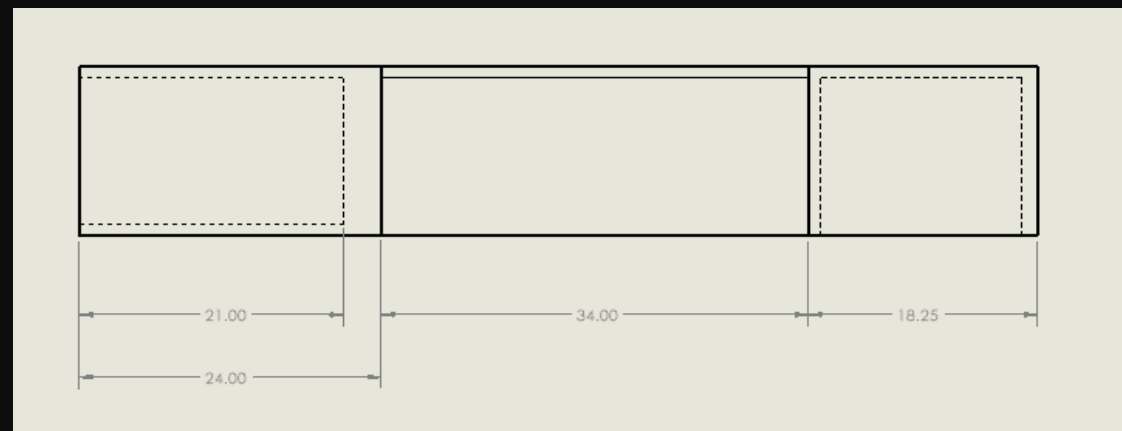
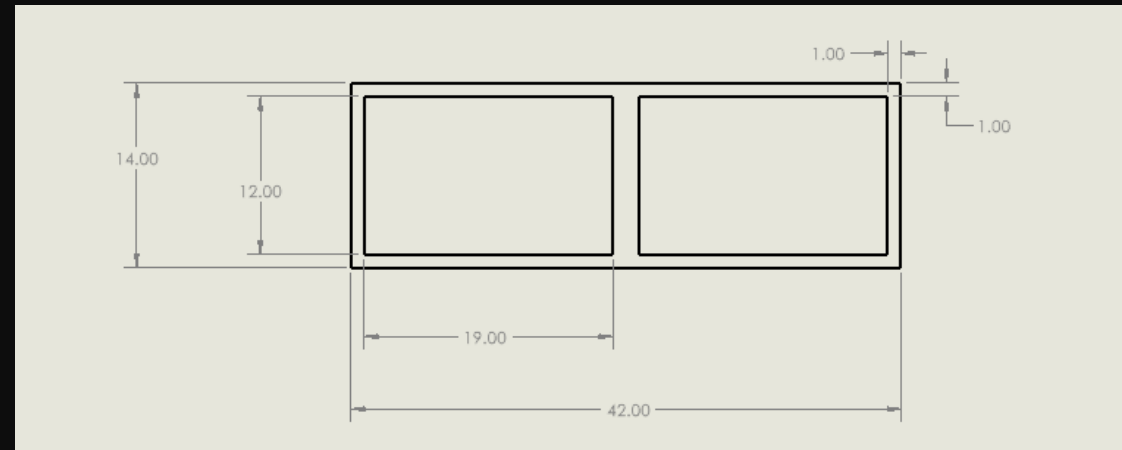
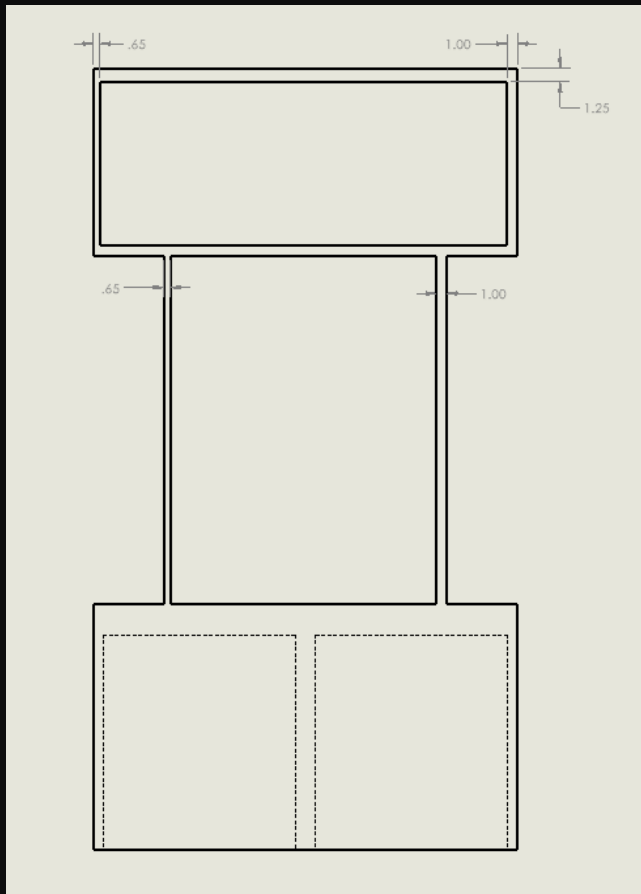
- Improve Width
- Improve Hight
- Improve Front Window to have Handle



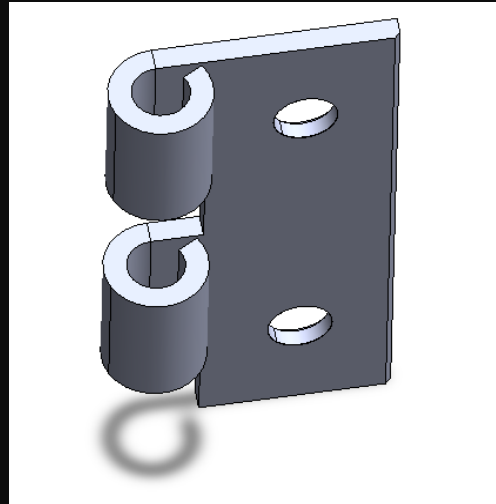
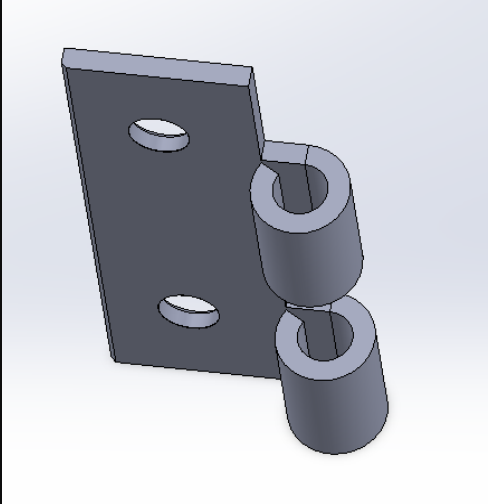
Wooden Camper Bed



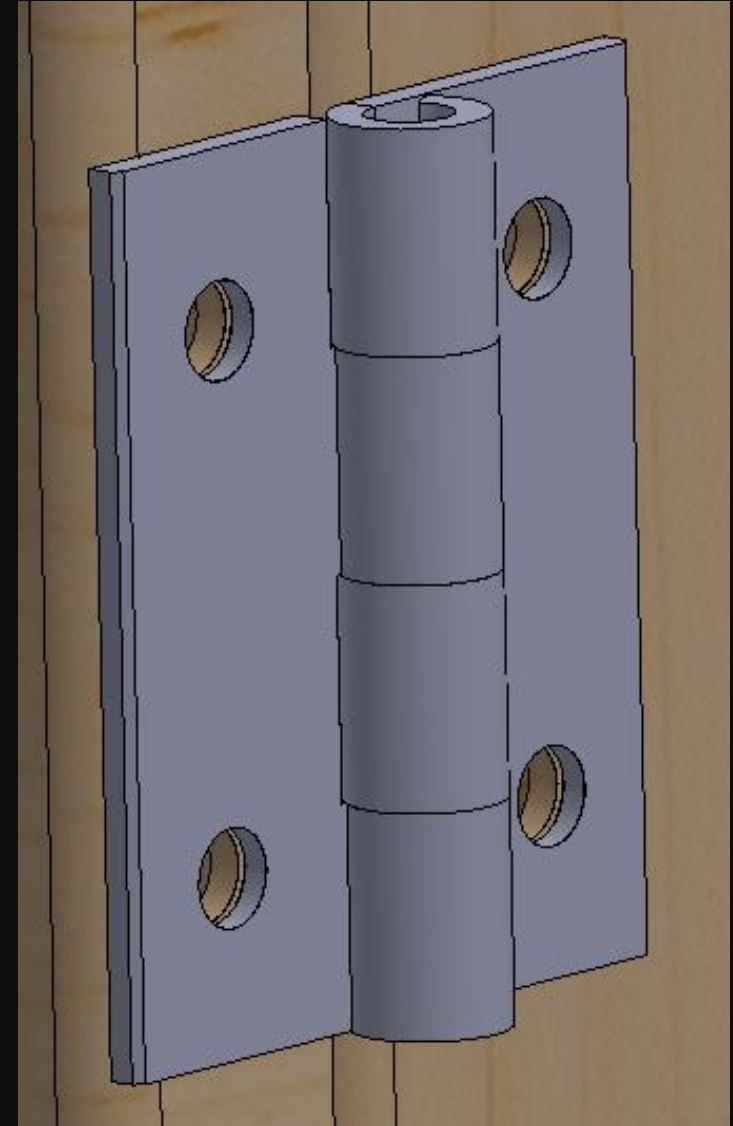
Wooden Camper Bed (2D Drawing)



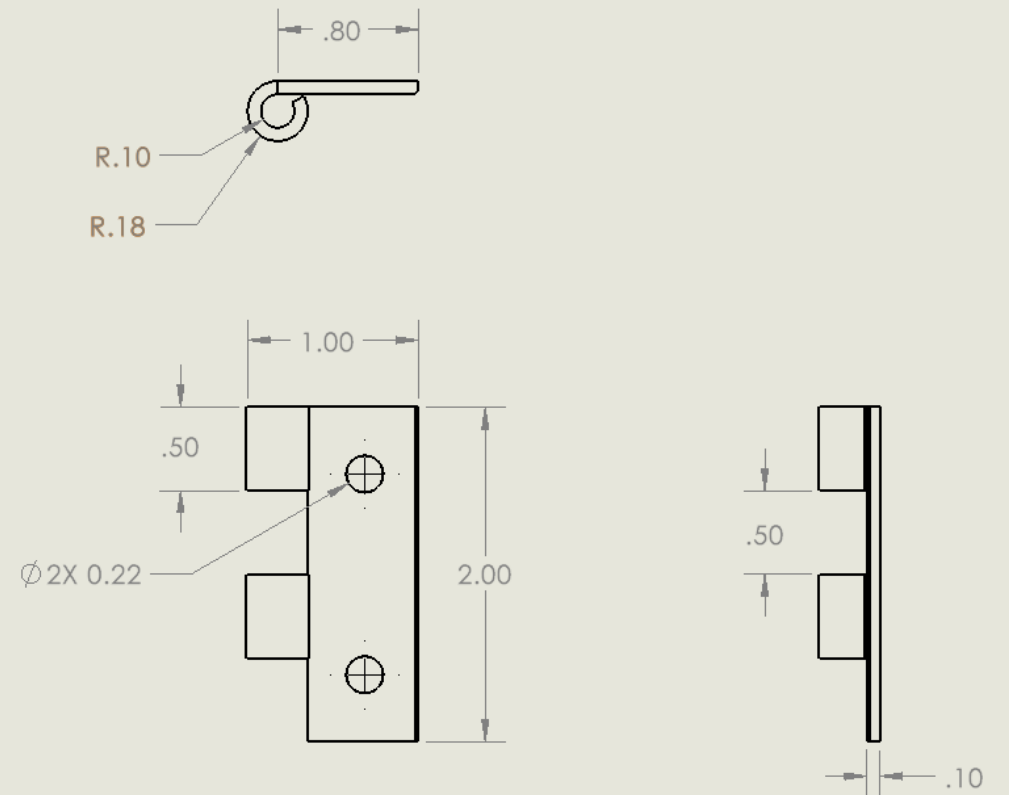
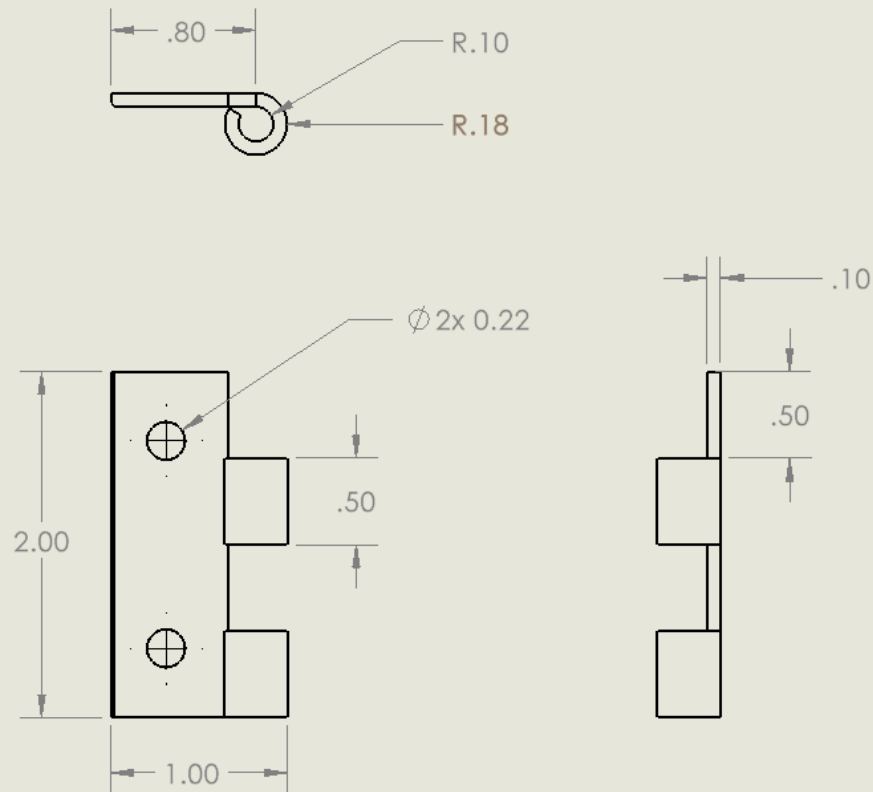
Hinge



- Cabinet hinges
- Features a left and right part, acts like a butterfly when opening and closing

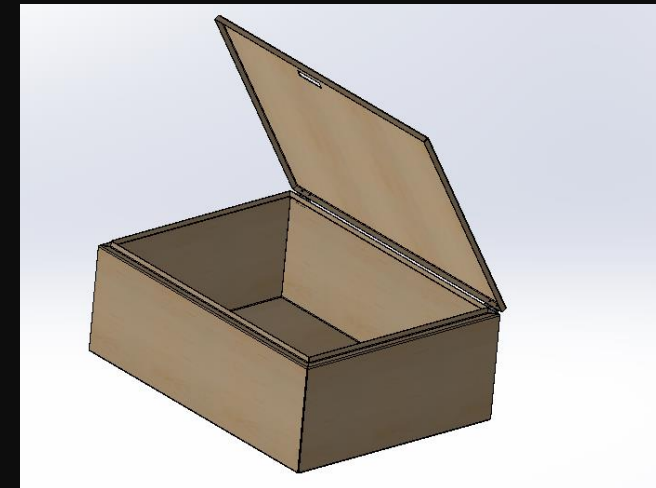
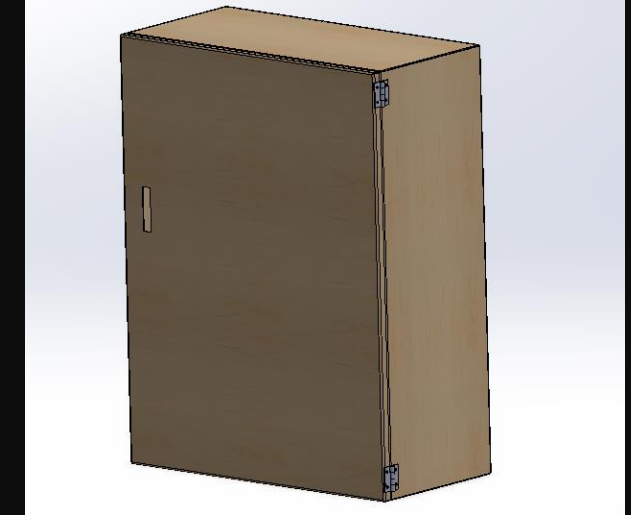
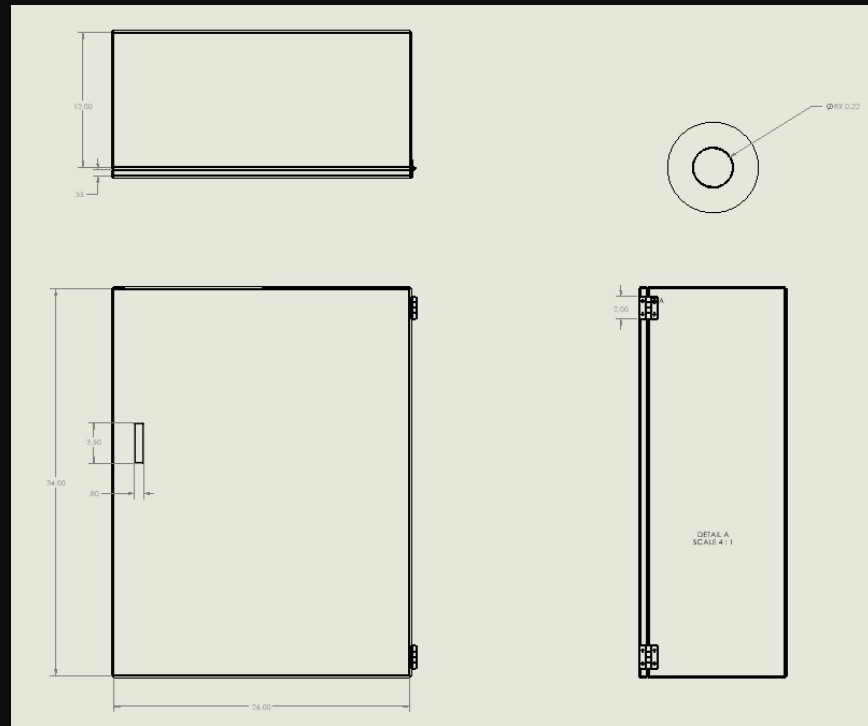


Hinge (2D Drawing)



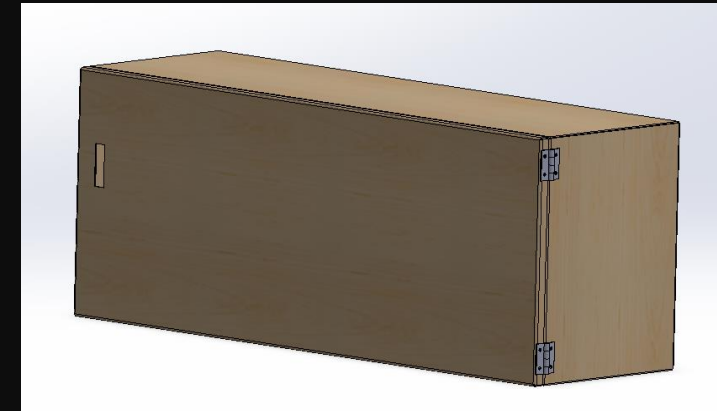
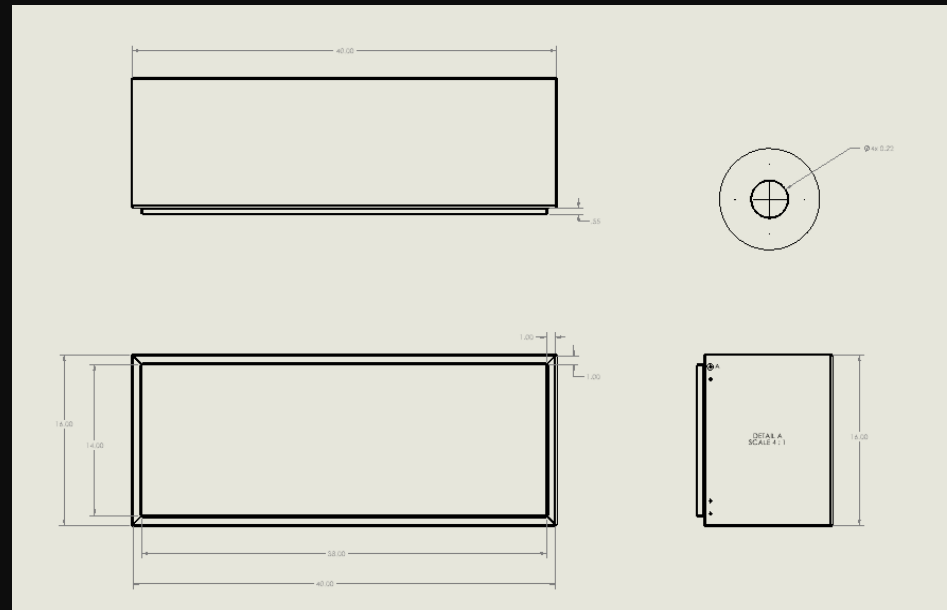
Small Hinged Compartment Subassembly

- 26" x 34" middle compartment
- Hole diameter for hinges are .22"
- .80" x 3.50" cut-out, acts as the handle



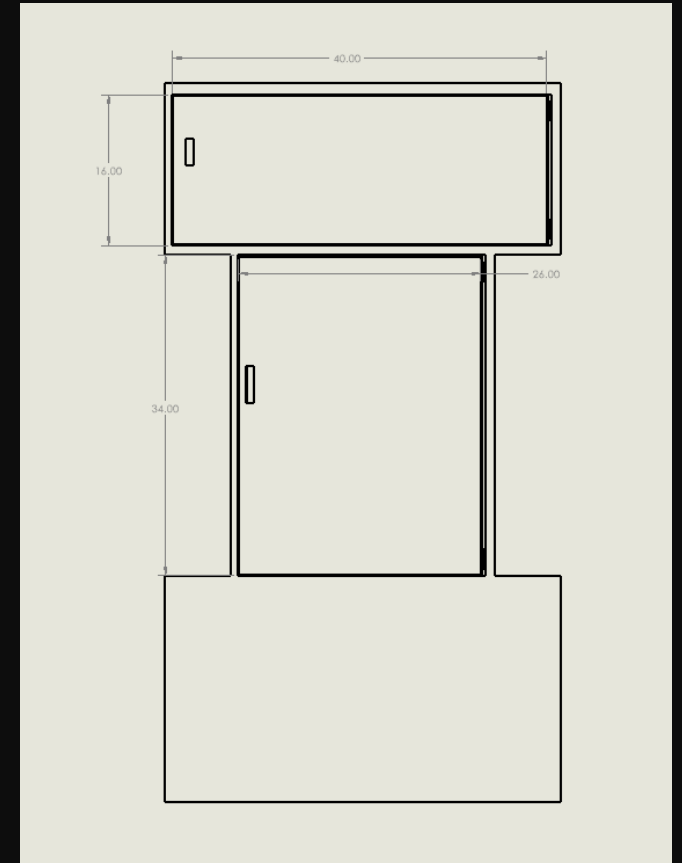
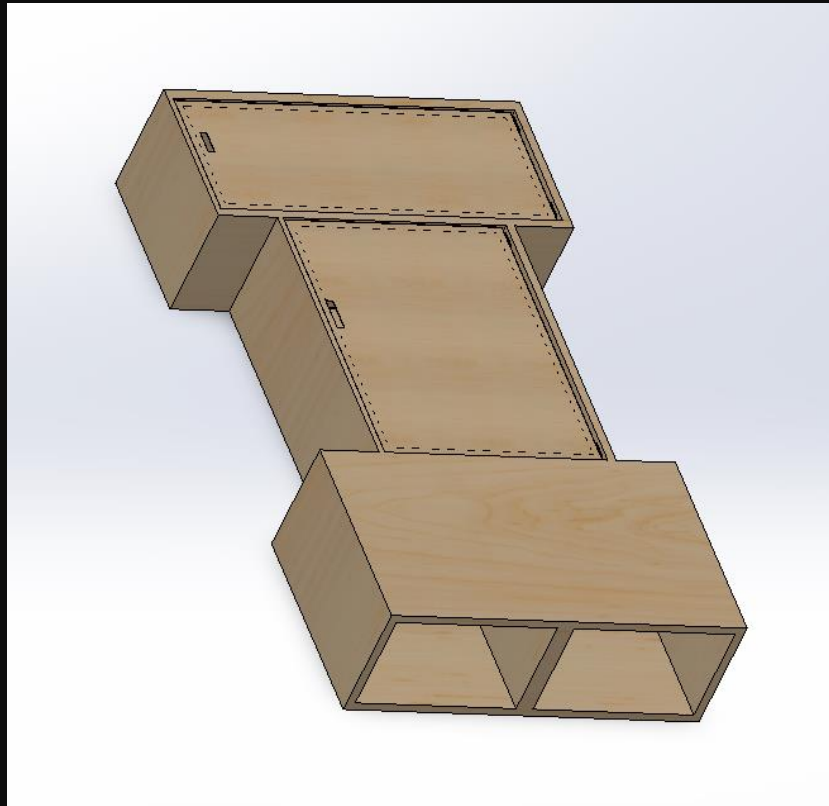
Large Hinged Compartment Subassembly

- 16" x 40" top compartment
- Hole diameter for hinges are .22"
- 1" x 3" cut out, acts as the handle



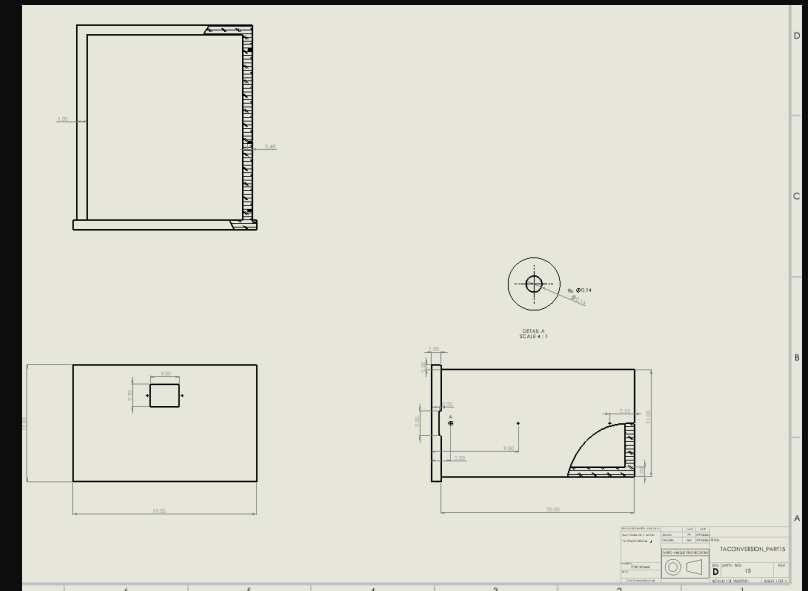
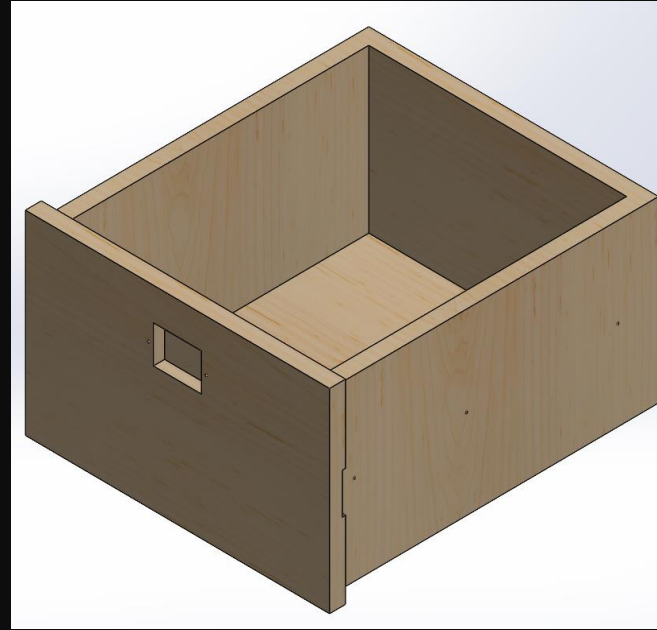
Compartments To Camper Subassembly

- Both compartments placed in the custom camper bed



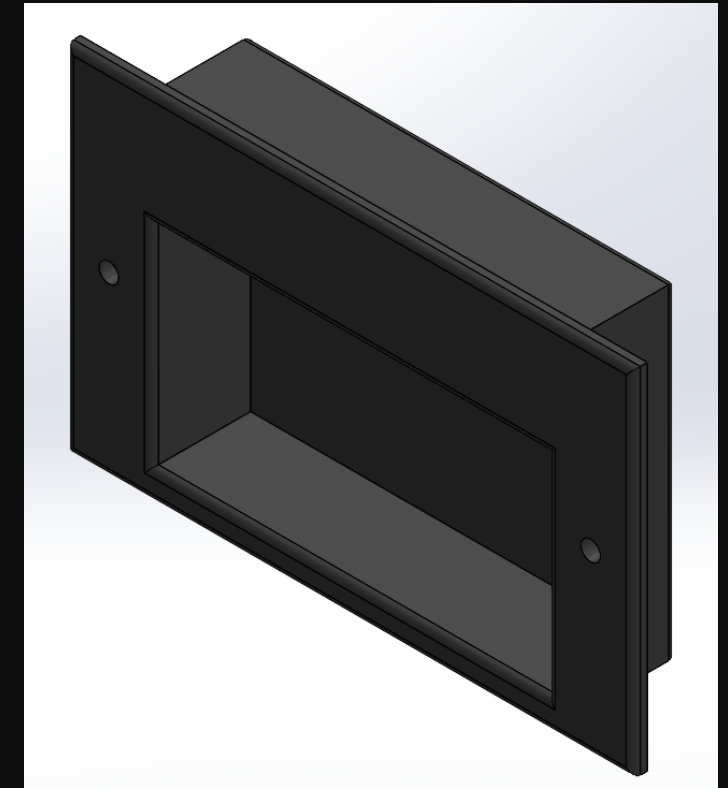
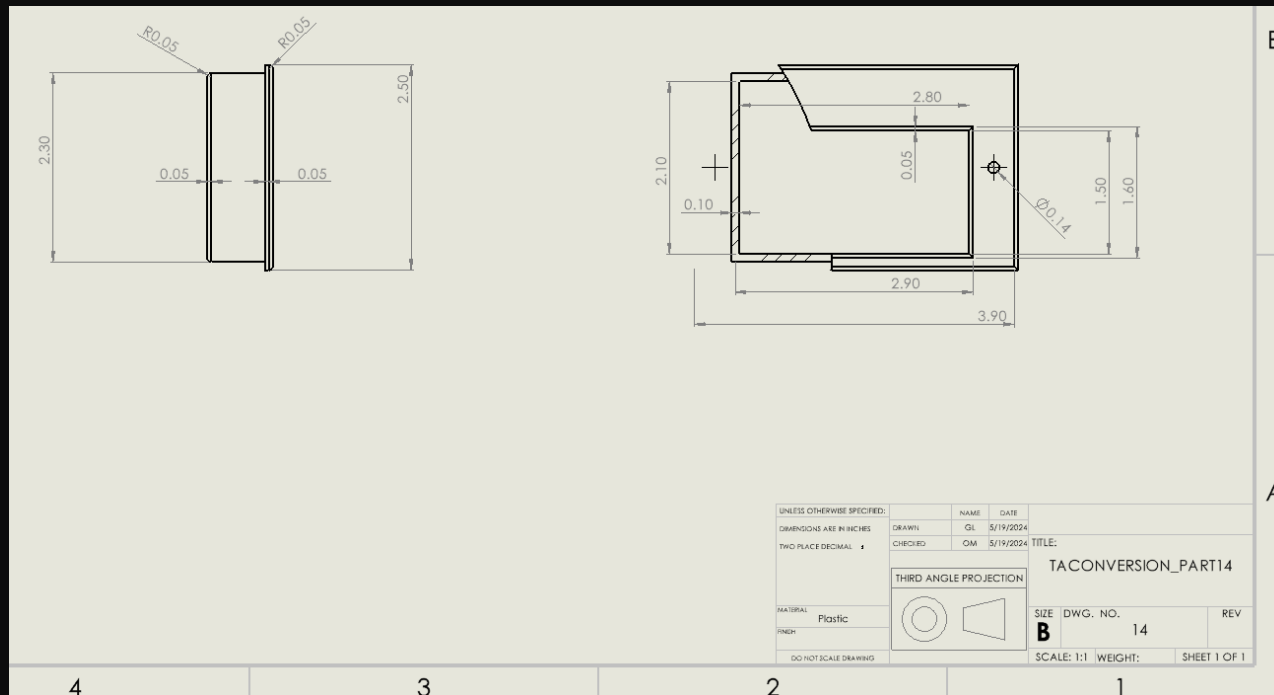
Drawer Box

- Simple box with a cutout to add a handle
- Screw holes on side for sliders



Drawer Handle

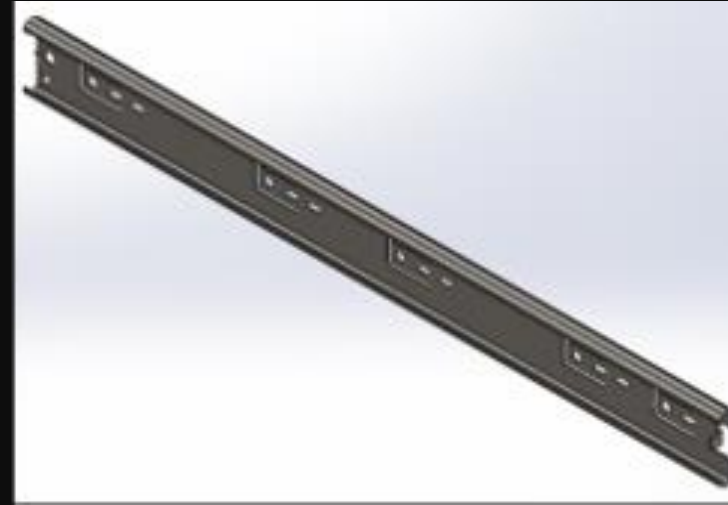
- Simple handle that sits seamlessly in the drawer face



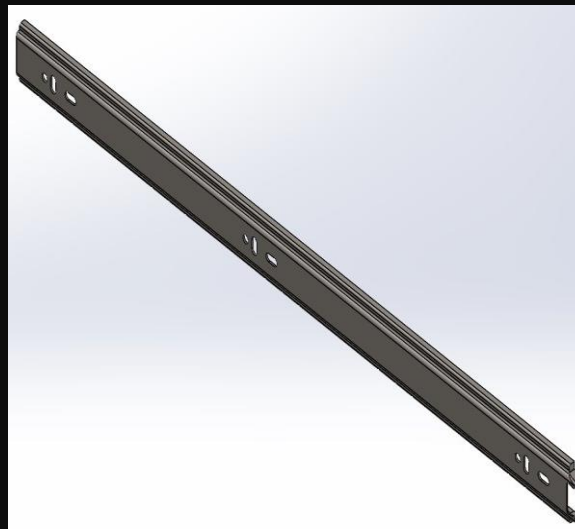
Drawer Slide (3D)

- Three part drawer slide

Outer



Inner



Middle



Drawer Slide (2D)

- Three part drawer slide

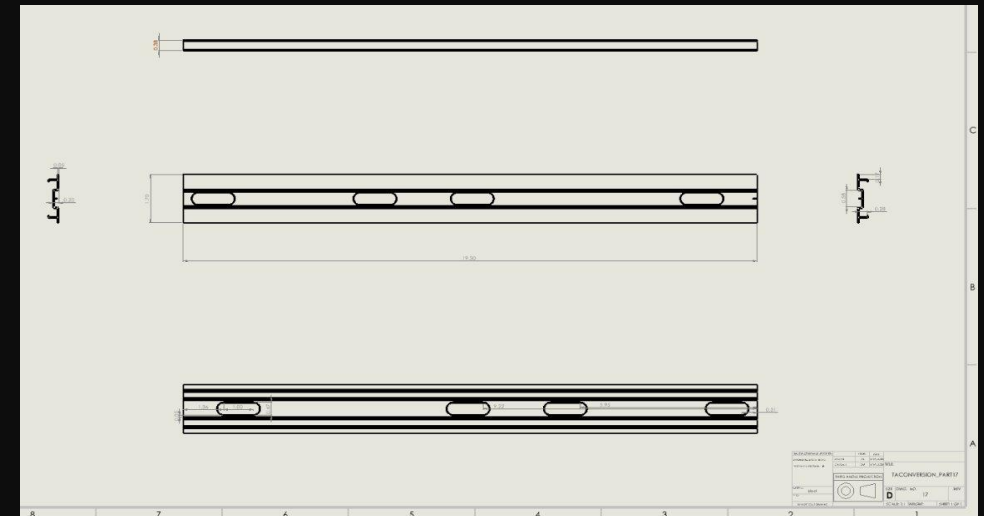
Outer



Inner

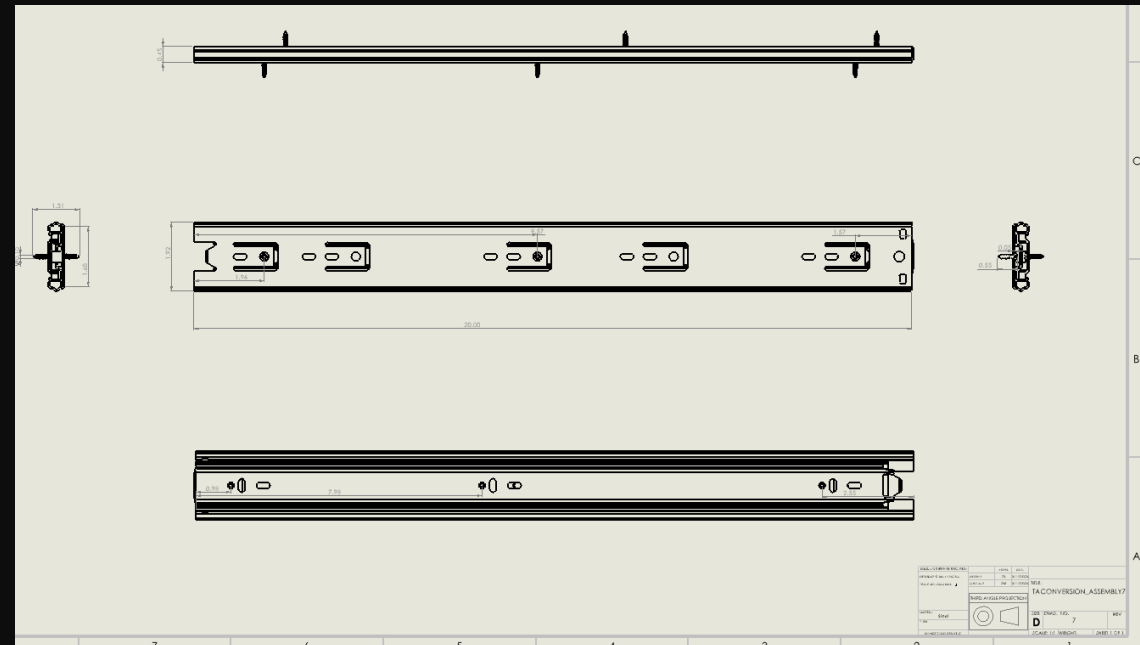
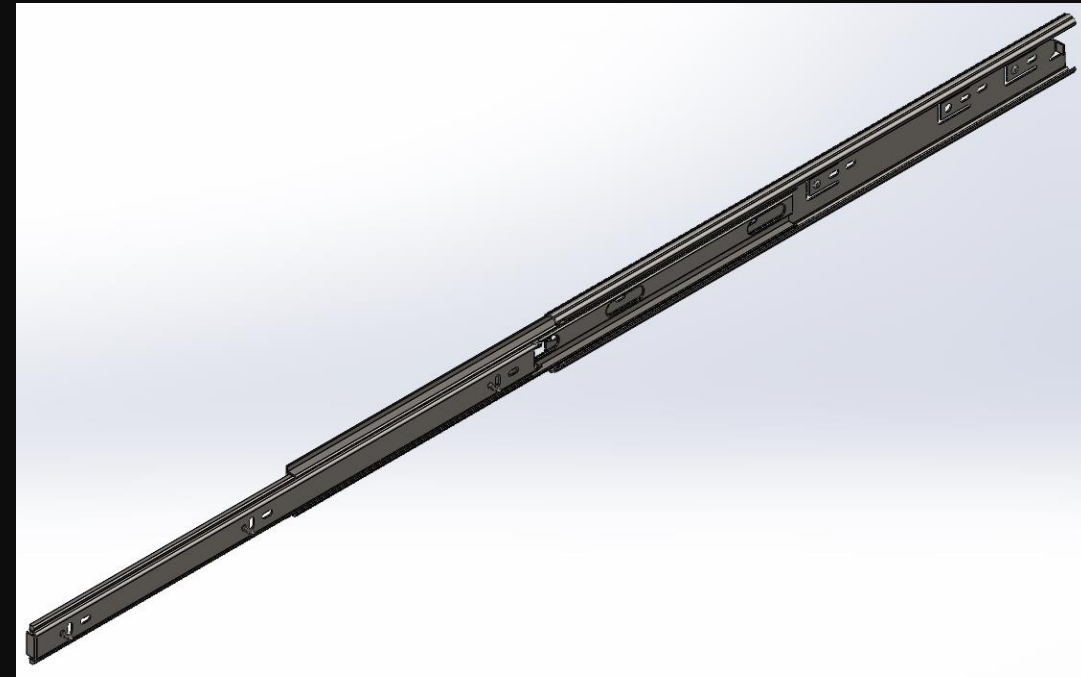


Middle



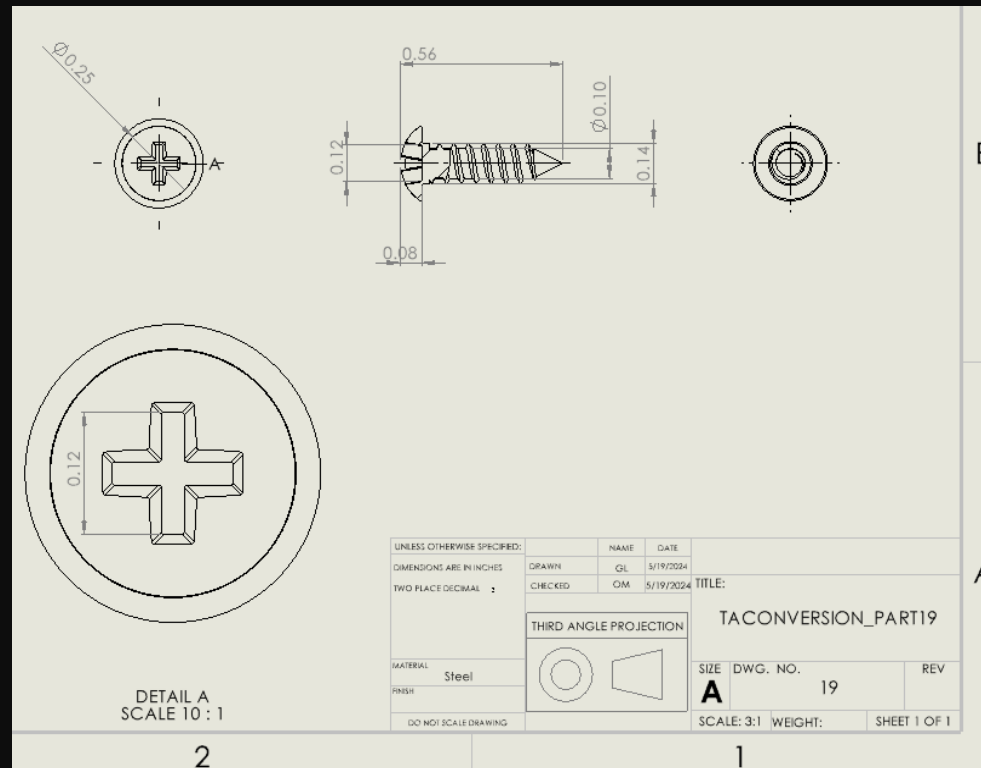
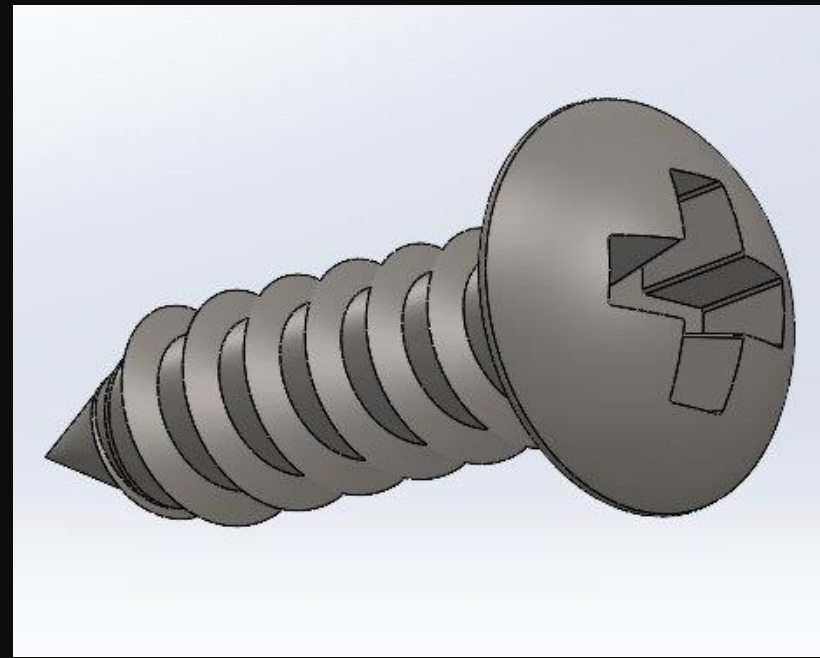
Drawer Slide Sub-Assembly

- Three parts put together and screws added
- Extends to double it's length



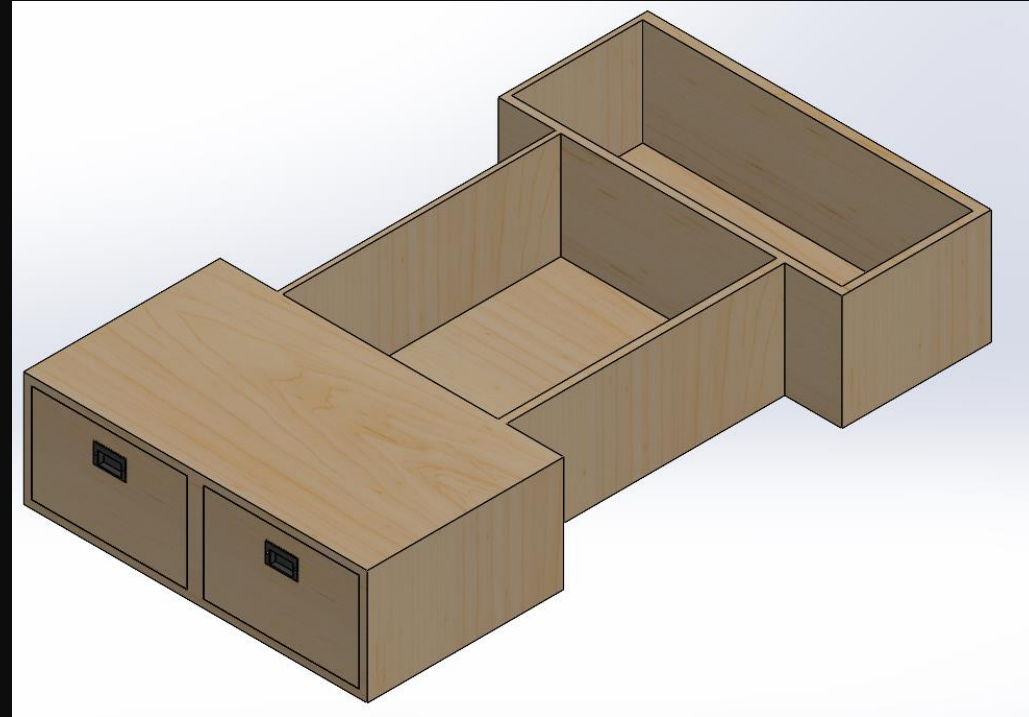
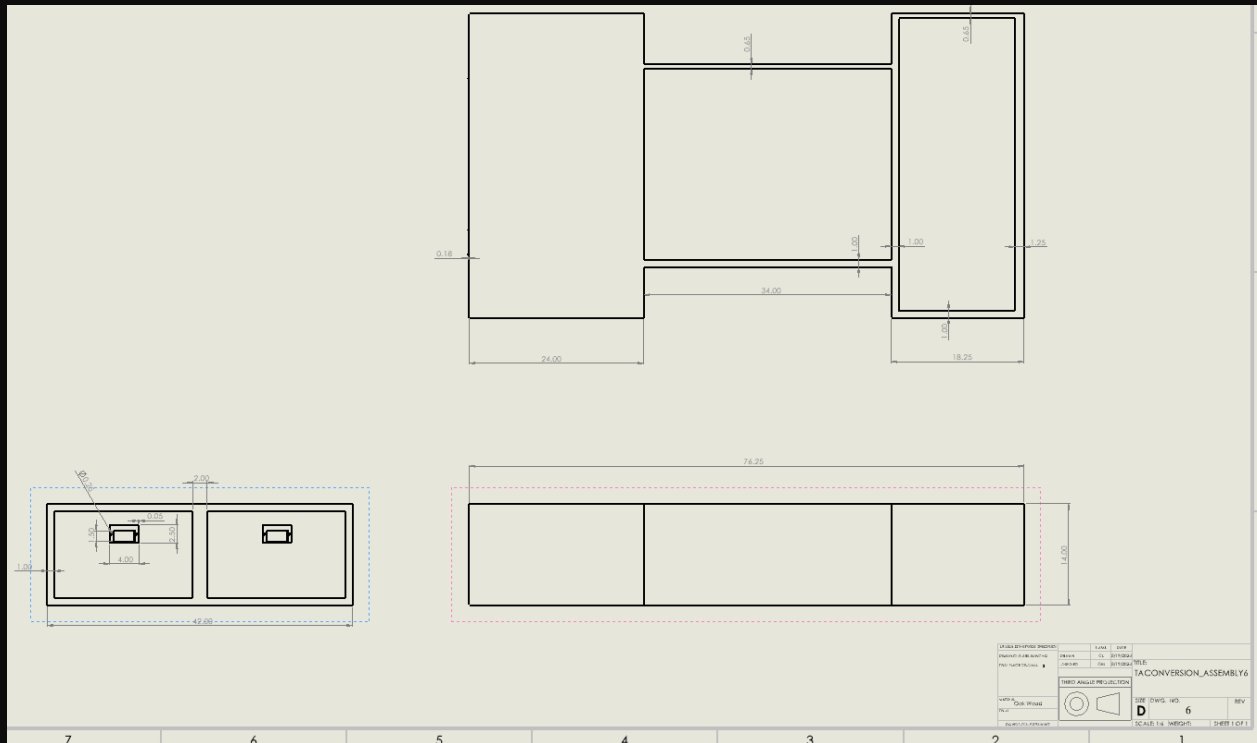
Screw

- Small screw that holds slider and drawer together

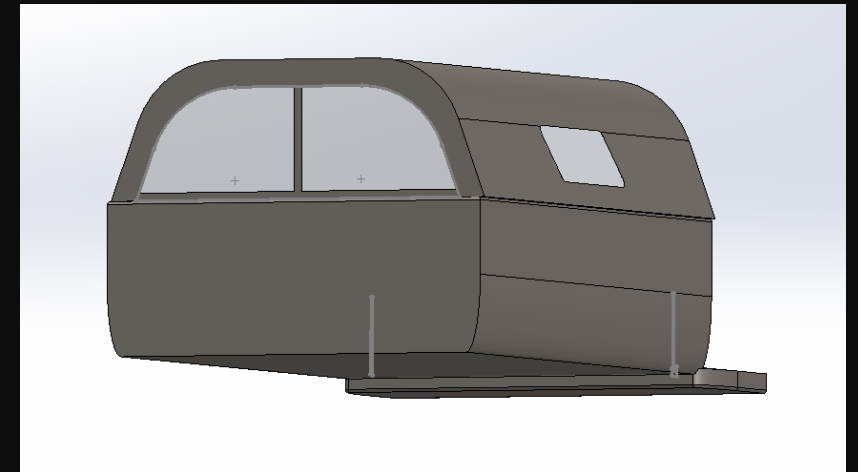
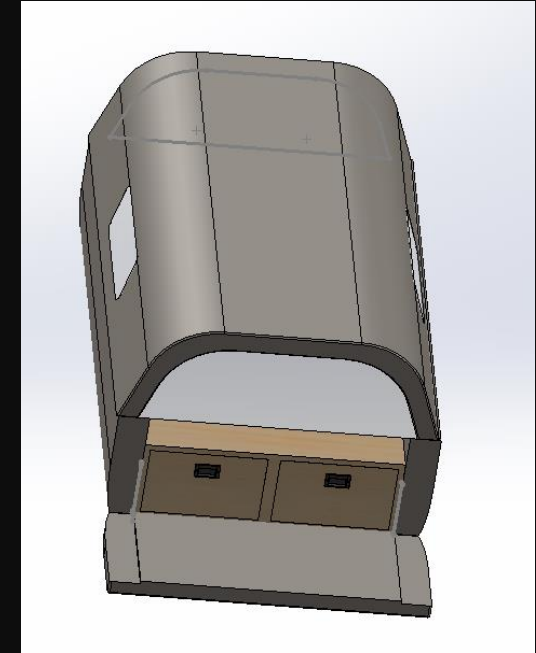
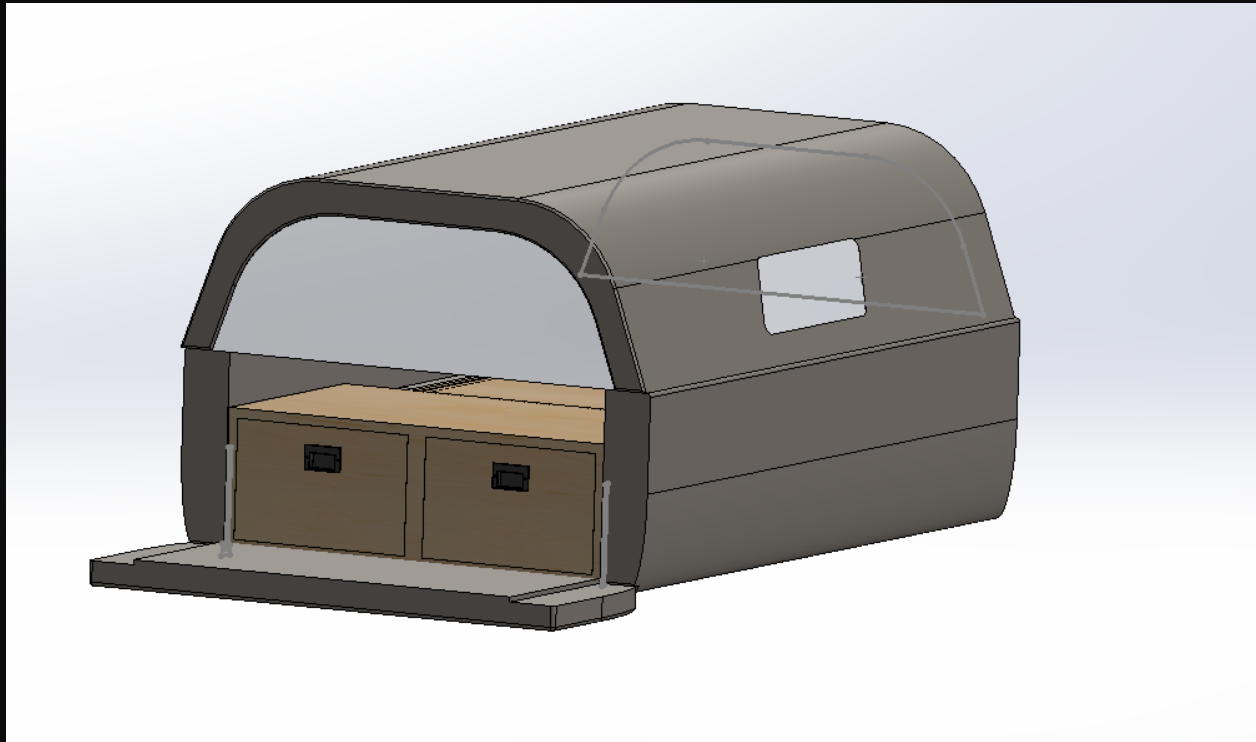


Drawer Sub-Assembly

- Drawers, slides, and screws put together



Final Assembly



Comparison To Similar Products

- DECKED USA Co.



Potential Design Improvements

- Make the compartments more compact
- Make the pull out drawer into one connected slide in/out drawer, then create compartments from within
- Rebuild the window to make it more versatile for the cab cover (i.e. only make one viable side window that fits both right and left side, make better mating points for all windows that allows them to be opened properly, and make gaskets for the windows to properly insulate that cab)

Additional Comments

- The Build?

