

S10 BUILD BINDER | GRM 2021



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ACQUIRING THE VEHICLE



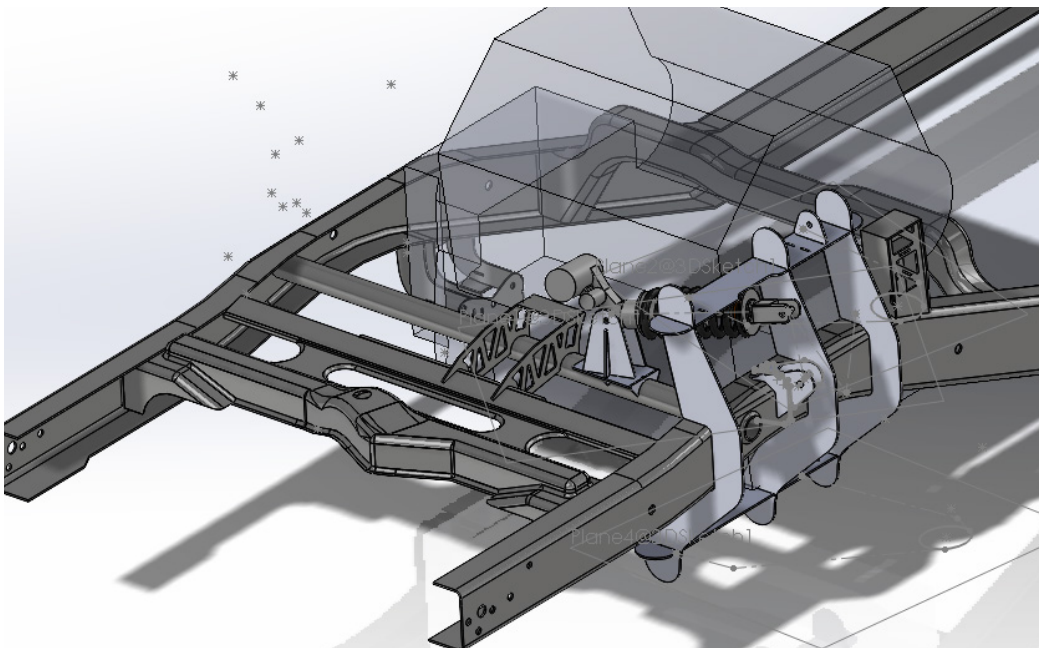
This year's Wreck Racing challenge vehicle is a 2001 Chevy S10, Xtreme package. The vehicle was purchased for \$275 in South Atlanta with a lot of rust, some half completed bondo work, and a very rad flame themed gauge cluster.



SCANNING



The first step in development was taking full 3d scans of the vehicle and frame components to aid in 3D CAD. The car was coated in multicolor chalk spray to create contrast and then pictured many times with a camera with low distortion lens. The photos were stitched together using Autodesk software to create 3D models to base the design off of.



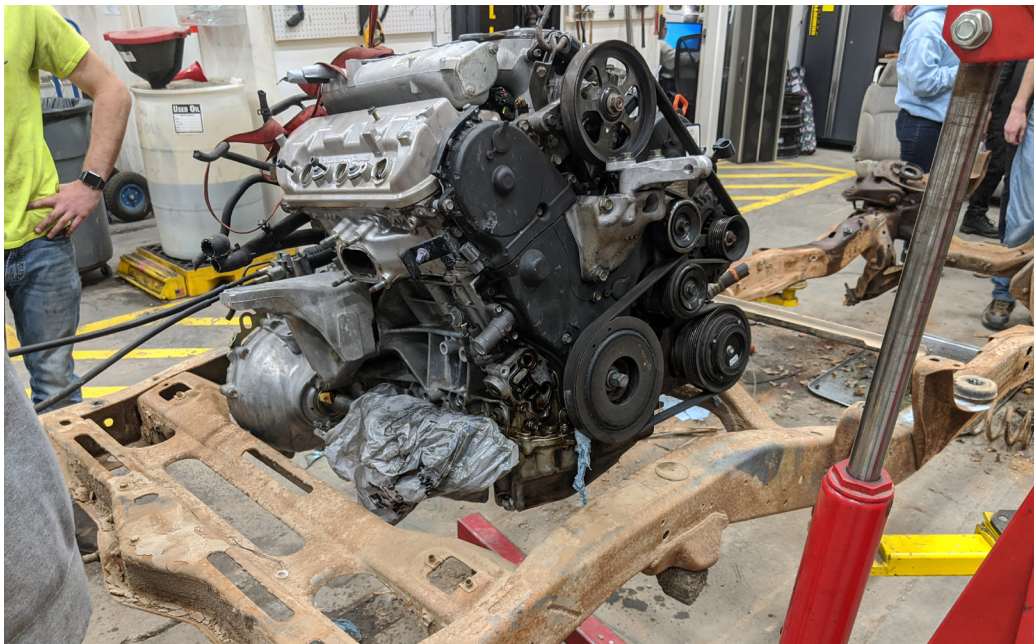
COVID



Shortly after beginning development, COVID struck and sent us out of the shop when classes closed down. We continued development as best we could using 3D scans, pre-taken measurements, and virtual CAD tools.



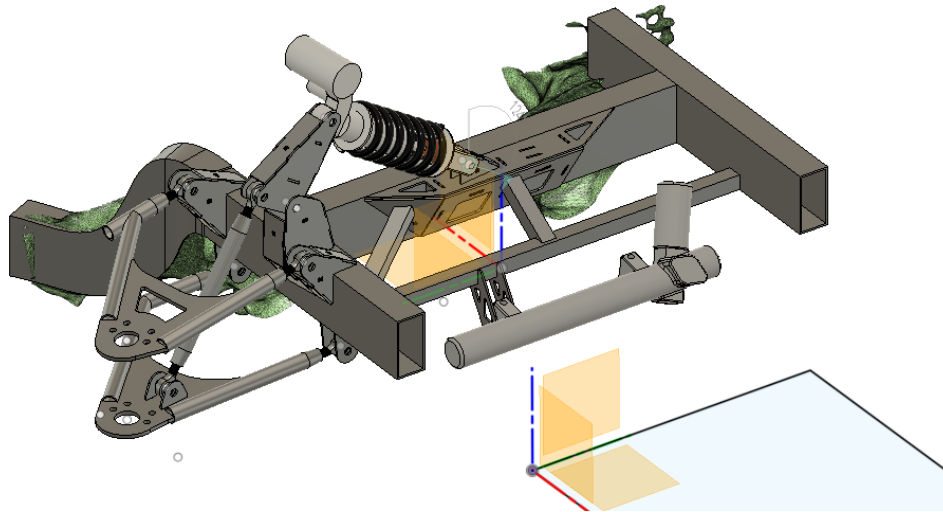
POWERTRAIN



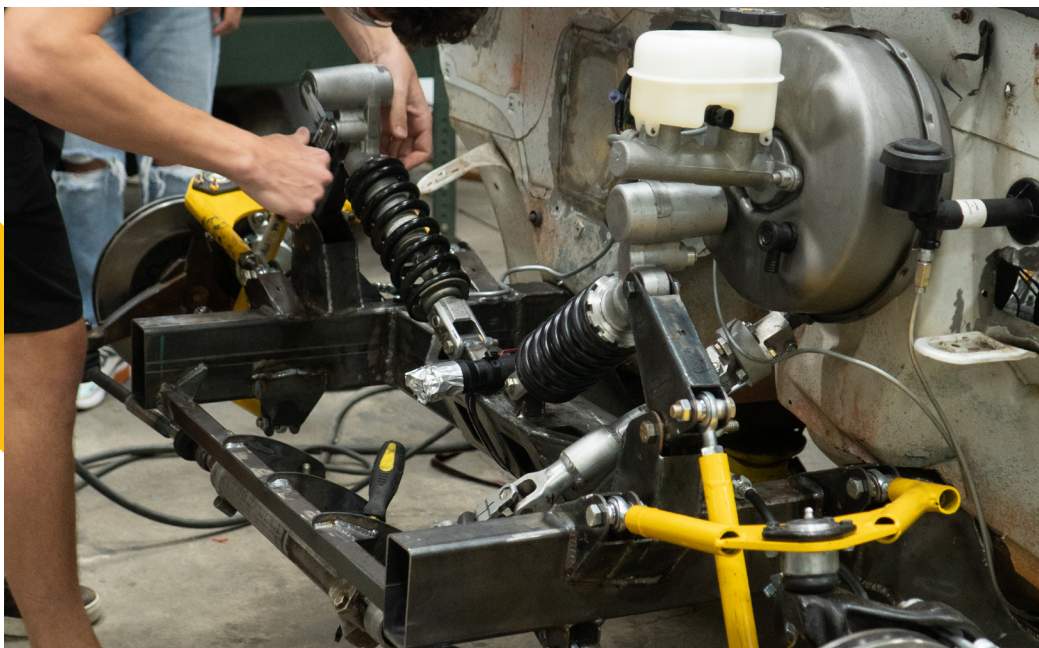
The powertrain for the S10 is a J32 and LSD 6 speed out of a 2007 Acura Type S. The engine is rigidly mounted in the bed of the truck driving the rear wheels, giving the vehicle a true mid-engined layout.



SUSPENSION



The suspension is fully designed and fabricated push/pullrod suspension setup. S10 knuckles are adapted in the front, with Acura knuckles in the rear. Each corner uses a hayabusa coilover and custom double A-arms. The control arm points were designed and validated using OptimumK suspension simulation and SolidWorks CAD and FEA.



BODYWORK



The S10 sports custom fiberglass bodywork molded off of the original front clip of the vehicle. The bed of the truck was skinned to be as light as possible. The truck is painted in a Spoon Sports inspired livery to pay homage to the Honda drivetrain.



PROJECT S10

