

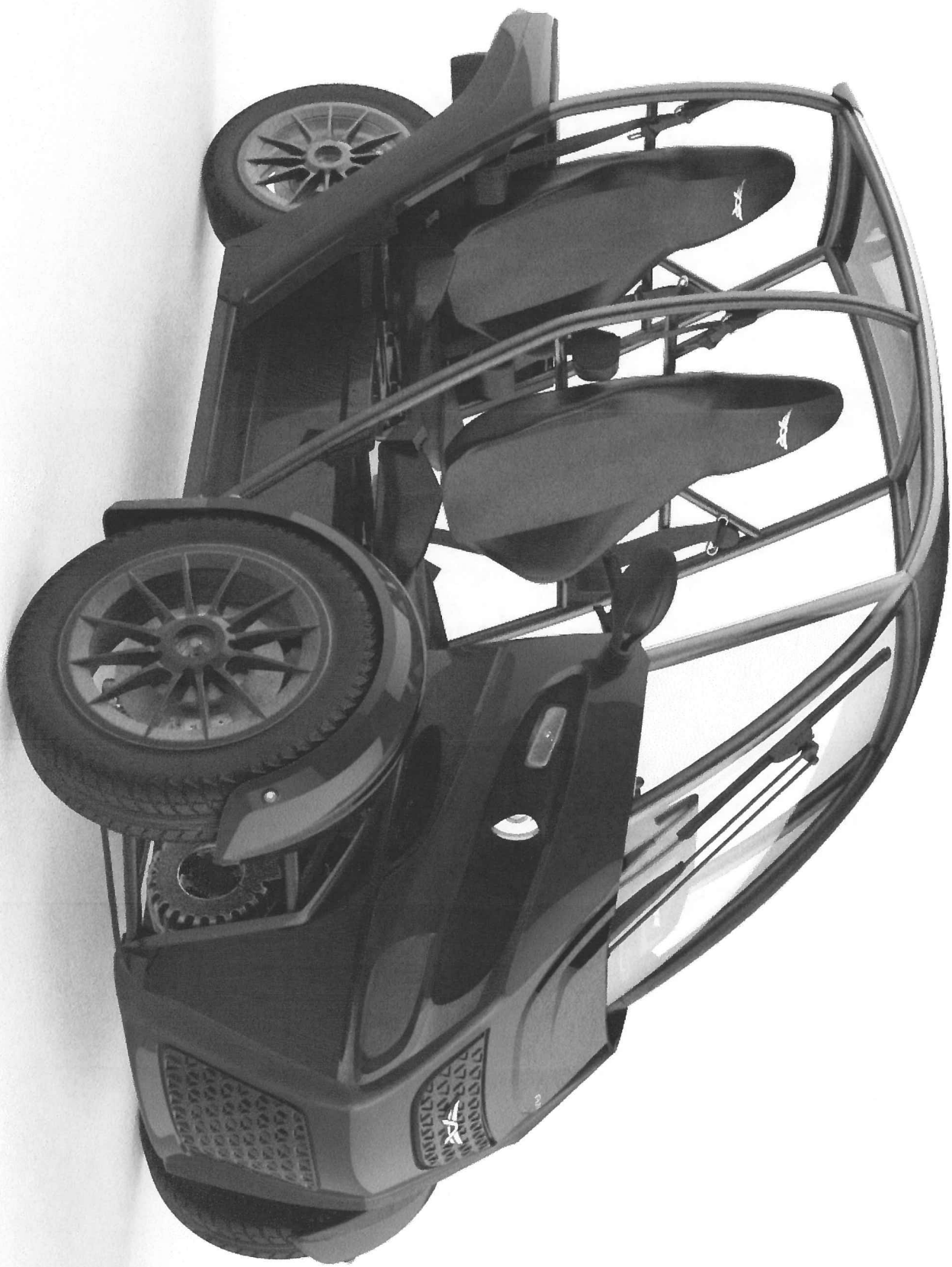


## JOEL SHELTRON

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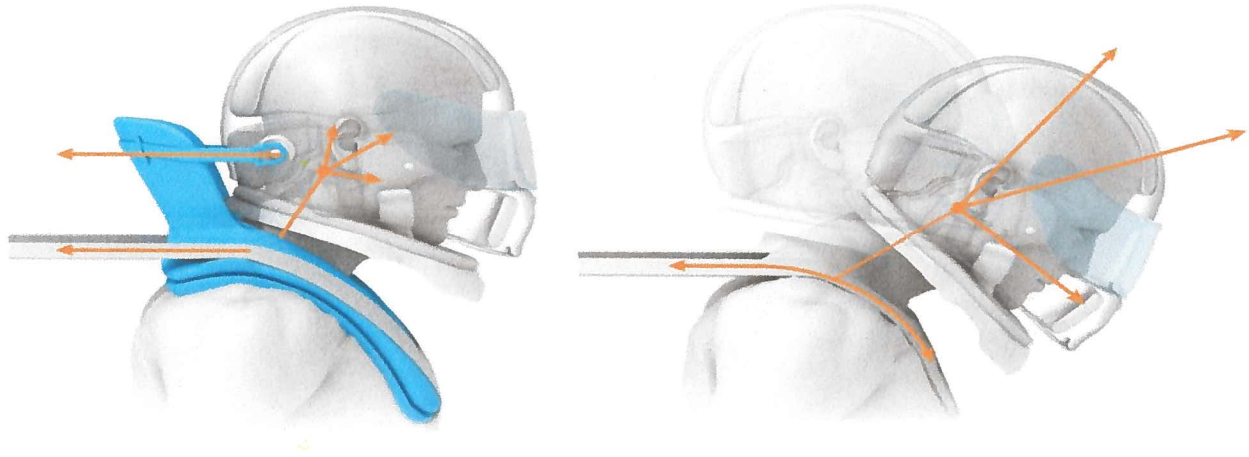
# Safety Equipment

- Space Frame Enclosure
- 3 + 2 Seat Belt Harness
- Anti Dive Optimization
- Front energy absorption zones
- Wipers - Washer

# Helmet

- Arcimoto has a full harness which straps across both shoulders, securely holding the operator and passenger inside the vehicle and against the seat.
- Helmets required with seat belts are dangerous, and can cause severe damage to the neck, paralysis and in some cases, death.

In the dark ages of motorsports, relatively minor accidents were often fatal. Case in point: Patrick Jacquemart's 1981 head-on collision into a dirt bank at Mid-Ohio while testing his Renault 5 Turbo IMSA GTU racer. Even though damage to the car was minor, Jacquemart died from a basilar skull fracture—a break in the bones at the base of the skull resulting in severe brain trauma.



The above sled-test drawings show the HANS at work. With only a neck to restrain it, a 15-pound helmeted head lunges forward at 107 g during a 40-g head-on collision. Resulting “shear” (two opposing forces perpendicular to the neck’s axis) and “tension” (pulling force along the neck axis) loads vastly exceed the injury threshold, making death more likely.

From NASCAR:

*“A major cause of death amongst drivers during races was through violent head movements, where the body remains in place because of the seat belts but the momentum keeps the head moving forwards, causing a Basilar skull fracture resulting in serious injury or immediate death.”*

Certainly race car drivers reach much higher speeds than public highways, but NASCAR: “You can get killed at speeds as slow as 30 MPH if you stop quickly enough”.

# Motorcycle License

- Currently, Michigan requires a motorcycle license for operation of this 3 wheel platform
- Like all autocycle type motorcycles, the Arcimoto handles like an automobile.
- The requirement of a motorcycle license and helmet for the Arcimoto should be exempted.