CUSTOM FLOOR-MOUNTED CNC PEDALS
5/8" FRONT MASTER CYLINDER
3/4" REAR MASTER CYLINDER

SUSPENSION SENSOR ARRAY:
- TEXAS INSTRUMENTS MSP-430 MCU
- WHEEL SPEED, INERTIAL MEASUREMENT, & TIRE TEMPERATURE SENSORS
- CONTROLLER AREA NETWORK BUS COMMUNICATION

WHEEL HUB:
- WILWOOD GP200 1/4" BORE CALIPERS
- RCV PERFORMANCE WHEEL HUBS
- BILLET ALUMINUM UPRIGHTS

SUSPENSION:
- DRAWN OVER MANDREL SPACEFRAME STEEL CONSTRUCTION
- 2300 LB-FT/DEGREE TORSIONAL RIGIDITY

HIGH VOLTAGE SYSTEM:
- 18650 LITHIUM ION CELLS
- PASSIVE AND ACTIVE CELL BALANCING BATTERY MANAGEMENT SYSTEM WITH CUSTOM FUSE BOARDS

ENERGY ACCUMULATOR CONTAINER:
- ALUMINUM 5052-H32 CONSTRUCTION
- 100 LBS. WEIGHT & 20 KILONEWTON FORCE LOAD
- LOAD BASED MOUNTING SYSTEM

GENERAL VEHICLE SPECIFICATION:
WEIGHT
- 550 LBS. DRY, 55% REAR BIAS
ENERGY ACCUMULATOR
- 96V @ 400 AMP MAX DISCHARGE, 5.6 KWH CAPACITY
TORQUE RATING
- 120 NM COMBINED WITH TORQUE VECTORING ALGORITHM
SUSPENSION
- 550 LB-IN SPRINGS WITH ADJUSTABLE DAMPERS, CAMBER AND TOE

PERFORMANCE METRICS:
ACCELERATION
- 0-60 MPH IN 4.5 SECONDS
SKIDPAD TIME 50 FT RADIUS
- 5.81 SECONDS AT 1.5G
60 MPH BRAKING DISTANCE
- 68 FEET
TURNING RADIUS
- 14 FEET

DRIVER DASH FOR VEHICLE MONITORING
13" X 7" ALUMINUM RACING WHEELS

SIDEVIEW V1.0
ANOTATED
FALL 2019

ANTEATER ELECTRIC RACING
“AMPEATER 2020”
SIDEVIEW V1.0
ANOTATED
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UC Irvine Senior Design Projects