

“Research and Data Driven Lab”
“Independent Public Data”

• Test cell features

- ✓ 4WD chassis dynamometer
 - Variable wheel base (180inches max)
 - 250 hp/axle
 - 300 to 12,000 lb inertia emulation
- ✓ Radiant sun energy emulation
850W/m² (adjustable)
- ✓ Variable speed cooling fan (0–62mph)
- ✓ Gaseous fuel and hydrogen capable
- ✓ Diesel: Dilution tunnel, PM, HFID

• Thermal chamber

- ✓ EPA 5 cycle capable
(20°F, 72°F and 95°F + 850W/m² solar load)
- ✓ Demonstrated as low as 0°F
- ✓ Intermediate temperatures possible



• Research aspects

- ✓ Modular and custom DAQ with real time data display
- ✓ Process water available for cooling of experiment components
- ✓ Available power in test cell
 - 480VAC @ 200A
 - 208VAC @ 100A
- ✓ ABC 170 Power supply capable to emulate electric vehicle battery
- ✓ Custom Robot Driver with adaptive learning
- ✓ Several vehicle tie downs
 - chains, low profile, rigid,...
 - 2, 3 and 4 wheel vehicle capable

• Special instrumentation

- ✓ State of the Art capability
- ✓ 5 gas emissions dilute bench with CVS (modal and bag emissions analysis)
- ✓ FTIR, Mobile Emissions unit
- ✓ Raw and Fast HC and NOx bench
- ✓ Aldehyde bench for alcohol fuels
- ✓ High precision power analyzers (testing and charging)
- ✓ Direct Fuel Flow meter
- ✓ CAN decoding and recording
- ✓ OCR scan tool recording
- ✓ Infra Red Temperature camera
- ✓ In cylinder pressure indicating systems
- ✓ In-situ torque sensor experience