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## Tesla Shows Future Products In IPO Road Show – Liquid-Cooled Motor And Electronics

June 23rd, 2010 by Jay WM Wong.

Tesla's IPO is about to happen next week. This means, naturally, CEO Elon Musk will have to go down and sell the company's stock and the best place and time to this is at the Road

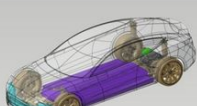
Show where the mavens of Wall Street will be present. Only thing left is to convince them on the value that this company holds.

What's interesting about this road show that took our attention is the picture depicted above; slide #19 of Musk's PowerPoint. The above slide shows the future of Model S including, a cabriolet, van and a crossover. Why interesting? It's because these cars will be mounted with a battery pack under the floor similar to the Nissan leaf.

We believe that the cabriolet particularly will stand out more than the

*Continued on Page 2: More Tesla's*

**Relentless Innovation**



"Tesla leads the auto battery pack industry. We are honored to be working with them."  
-Munehisa Ikoma, Panasonic CTO

**Performance & Cost Improvements from Roadster to Model S\***

Battery Pack*	Power Electronics*	Motor*
Continuous Power ↑45%	Liquid Cooled	Liquid Cooled
Energy ↑25%	Continuous Current ↑50%	Continuous Power @ 70mph ↑100%
Module Volumetric Energy Density ↑45%	Reduction in Power Loss at Continuous Current ↓20%	Top Speed ↑15%

his offering is expected to price on or about June 28th

**Platform for Broader Market Opportunity**



Sedan Cabriolet Van Crossover/SUV

Common Powertrain

Adaptable Common Platform

Revolutionary Packaging

## Calgary company develops electric vehicle using hemp

August 27, 2010, by Tony Van Alphen

Don't call it the cannabis car, but a Calgary transportation company and its partners including some Toronto firms have developed an electric vehicle with hemp body parts.

Calgary-based Motive Industries says it will unveil the design of the Kestrel compact car and its hemp composite components at an electric vehicle show in



Vancouver next month.

The design and engineering of the four-seat car is part of Project Eve, a major Canadian initiative that is promoting the production

of electric vehicles and parts.

A consortium of more than a dozen companies, including **Toronto Electric** and **Archonix Corp.** of Markham, and some technical schools plan to use impact-resistant, bio-composite material made from industrial hemp, other fibers and resins for outside body panels and some interior components.

Hemp does not contain tetrahydrocannabinol (THC), the active ingredient in marijuana and hashish.

"We have had a lot of public interest in what's we're doing but

*Continued - Page 3: EV Start-Ups*

## First across Canada by electric car

Sep 03, 2010, by Monte Gisborne

Ricky Gu, a third-year electrical engineering student at the University of British Columbia, is entering the history books as the first person to drive across Canada in a battery-electric, non-solar car — with a little help from his friends.

Electric car projects are often the folly of the rich, like billionaire Elon Musk and his jaw-dropping \$130,000 Tesla, but Gu's station in life isn't nearly as flamboyant. He's a 21-year-old student entering into his final year at UBC living on a budget that includes Kraft Dinner far more often than

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**Editors Notes** - The Electric Vehicle Society is increasing it's Public Presence by being at invitational Eco Events! We have just shown an EV at the Eco Wheels Show in the Distillery District, May 29-30, and at the Windfall Eco Festival in Newmarket, June 12-13. We have shared membership and EV information with over 150 EV interested people and increased our membership as well! Tell your friends about EV Fest! [www.evfest.ca](http://www.evfest.ca)—**October 17, 2010!**

### **Hot Links!**

**Tesla plans to build EVs with Toyota, buy NUMMI plant**  
<http://tinyurl.com/Tesla-Toyota1>

**Tesla's \$178 Million IPO Set For June 29, 2010**  
<http://tinyurl.com/Tesla-IPO1>

**Food Rules-An Eaters Manual: Don't Eat Food That Doesn't Rot.**  
<http://tiny.cc/foodrules>

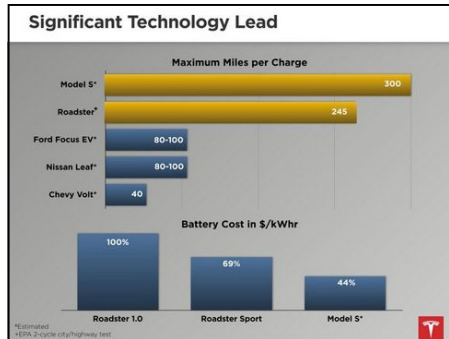
**Official Gulf Spill Estimate Doubled: There's Been an Exxon Valdez-Sized Spill Every 8 Days**  
<http://tiny.cc/mexico-valdez>

**Can a Tiny Weatherproof Solar Light Bulb Replace Kerosene Lights?**  
<http://tiny.cc/Solar-vs-KLamp>

**Next Issue: SEPT-OCT 2010**  
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### **More Tesla's - From Page 1**

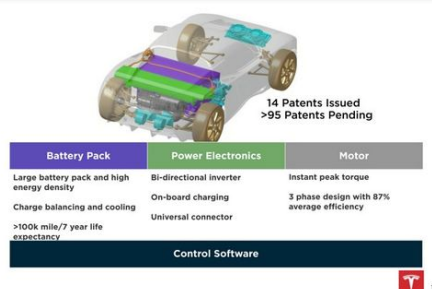
rest to provide a real competitor to the Fisker Karma Sunset.



Musk also revealed the liquid-cooled power electronics and motor starting with the Model S.

Although the cost and powertrain might be a pinch, it should result in an efficient car that may overcome certain limiting factors that were found during the development of the Model S. You are welcome to watch the Road Show here:  
<http://tinyurl.com/tesla-iposhow>

### **Disruptive Technology**



**Source:** [www.wemotor.com](http://www.wemotor.com)  
**URL:** <http://tinyurl.com/teslafuture>



**More Hot Links!!**  
**Sophia Bush and Austin Nichols Know the Real Story of the Gulf Oil Spill (Interview, Part 1)**  
<http://tiny.cc/real-gulf-story>

Austin Nichols: "When you're actually there and you see our own policemen and our own military taking orders from a big oil corporation, it's really unnerving and awful."

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**With a little help, electric car tackles cross-Canada tour** Friday, Sep. 03, 2010, by Michael Vaughan

Mitsubishi Motors is in the process of being the first to drive an all-electric car across Canada – from Atlantic to Pacific.

The car is the production version of the i-MiEV. In Japan the "i" is Mitsubishi's little four-passenger car with a three-cylinder, 650-cc gas engine behind the rear seat. The i-MiEV (Mitsubishi innovative Electric Vehicle) pulls



Andrew Bardwell is driving the Mitsubishi i-MiEV across Canada.

out the engine, gas tank and transmission and sticks in a single electric motor mounted on the rear axle and a lithium-ion battery pack of 88 cells. Mitsubishi has put about 1,600 of these electric cars on the road in Asia and plans to begin selling them in limited quantities in Canada at the end of next year.

Andrew Bardwell is at the wheel for most of the i MiEV's 7,500-km Canadian trip. He says he has the pioneering spirit about this trip. The maximum range of the car between recharging is 125 km. "That's a lot of recharging," says Bardwell, "but it gives you an opportunity to relax."

*Continued - Page 4: First Production*

there have been some sensational headlines,” Motive president Nathan Armstrong said Friday about the mistaken link to canna-

study is determining whether more hemp production is commercially viable in view of its potential uses.

The consortium will complete and roll out the first Kestrel hemp prototype by the end of the year, according to Armstrong. While project officials are using hemp extensively, the main frame will be made of a aluminum.

The idea of using hemp as a material in vehicles dates back to 1941 when auto pioneer Henry Ford produced a car using hemp, wheat straw and resins to make body parts such as trunk lids that could withstand eight times the force of steel before denting. However, the company never used hemp extensively.

Hemp also has numerous industrial uses ranging from the production of chemicals, to paints, the backing on carpets and even as an alternative fuel for cars.

Project officials also say Canada has an advantage in exploiting the use of hemp because of productions restrictions south of the border.

The U.S. Congress passed the Marijuana Tax Act in 1937 which effectively ended hemp production. Washington’s Drug Enforcement Administration opposes any changes for domestic cultivation, hemp supporters say.

**Source:** Toronto Star

**URL:** <http://tiny.cc/hempcar>



**Related URL’s:**

- <http://www.projecteve.ca/>
- <http://www.torontoelectric.com/>
- <http://www.motiveind.com/>
- <http://www.arcx.com/>
- <http://www.tm4.com/home.aspx>

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**Collaboration Drives Technology  
Network Effects Drive Adoption**

bis and marijuana.

The project is one of many consortiums that have surfaced to pursue the emerging world of electrical and hybrid vehicles that would gradually replace the century-old internal combustion engine.

Project officials say the combination of hemp, other fibers and resins can be stronger, lighter, less expensive and easier to manufacture than fiberglass, a major material in autos.

Armstrong also noted that energy costs are much lower for manufacturing hemp and it produces no toxins that undermine the health of workers.

Some farmers in Alberta and Ontario already grow hemp for industrial uses that could be used for the car. A government-funded

“The farmers are going to be helping us and we are going to be flying,” said Project Eve leader Steve Dallas about prospects for hemp in cars.

Dallas, president of Toronto Electric, said the consortium will unveil five electric prototypes for production within the next few years. Member companies have already selected a Winnipeg manufacturer to build a few dozen vehicles for large corporate fleets, he added

In addition to releasing a design of the Kestrel at the EV 2010 VE Conference and Trade Show in Vancouver, the consortium will unveil Dallas’ A2B two-seat electrical car which he has developed in recent years and drives around Toronto. It can reach speeds of up to 115 km per hour, he said.

### **First Production - From Page 3**

Recharging takes 14 hours from a 110-volt wall plug, 7 hours from a 220 volt drier plug and as little as 30 minutes from a quick charging station. Fortunately, a massive Freightliner accompanies the i-MiEV on its cross country trek carrying a great, big generator. "In the middle of nowhere, we use a Direct Current Quick Charger to get us up to 80 per cent power in about 30 minutes."

Tomoki Yanagawa , vice-president of sales, marketing, planning at Mitsubishi Motor Sales of Canada, says the i-MiEV is "definitely" going on sale in Canada next year. "We expect to bring the price in at between 30 and 40 thousand dollars in Canada."

I took the i-MiEV for a test spin during its Toronto stopover and can attest that this is a peppy and comfortable car that has no difficulty keep up with highway traffic. With zero tail pipe emissions, in fact zero tailpipe, it seems like a great choice for limited city commuting.

For the cross-Canada tours I hope there's a recharging infrastructure built out some day. It's slightly counter-productive to travel with your own Freightliner as backup power. That's the price of pioneering, I guess.

### **CHARGING STATIONS IN MANHATTAN PARKING LOTS**

As if you don't pay enough to park in New York, soon you'll be able to pay more to recharge your

*Continued on Page 5: Freightliner*

### **First Car Across - From Page 1**

caviar.

To keep costs down, he converted a Volkswagen Beetle to electric propulsion and utilized many off-the-shelf

components. However, the complex battery management system, which ties all system

functions together, was designed and fabricated on his own.

His dream began 10 months ago when he formed an electric car club, intending to showcase green transportation at the 2010 Winter Olympics.

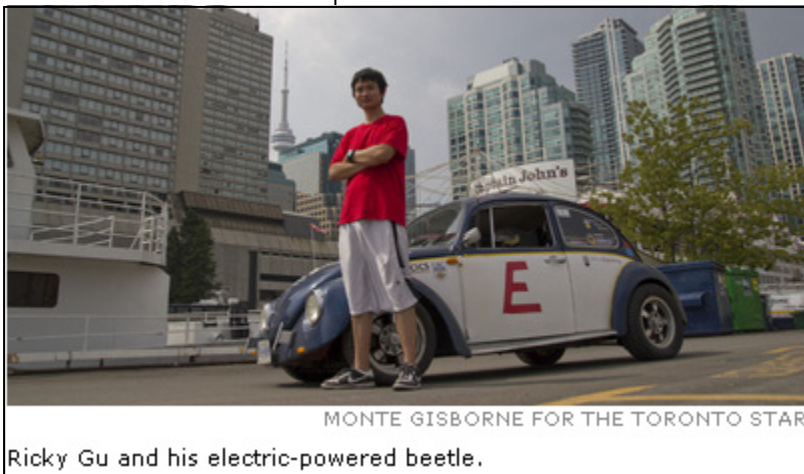
"Mayor Gregor Robertson wanted to promote the city (during the Olympics) as one of the greenest cities in the world," he explains, "but we weren't given the chance to participate, so I thought we'd take the message to the nation and maybe beyond."

In Gu's terminology, "maybe beyond" actually means "around the world" — he's already planning the next legs of his world voyage for 2011 after he graduates.

To keep his batteries charged during this Pacific-to-Atlantic drive, which began in Vancouver Aug. 21, he has been staying at

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campgrounds along the way, picking up a charge from the 50-amp receptacles usually used for large motorhomes. His cross-Canada odyssey was due to end yesterday in Halifax.



Ricky Gu and his electric-powered beetle.

While the exterior of his car didn't generate much attention in Toronto on Tuesday, the same cannot be said of the technology under the hood, er, trunk.

Members from the EV-fluent Electric Vehicle Society gathered to cheer him on, keen to see the car's set-up with its 54 KW/hours of lithium battery capacity.

Combined with a highly-advanced 50 kilowatt three-phase AC motor, his Beetle can travel up to 550 kilometres per charge, giving the car much more power and range than in original form.

This ain't your Grandma's EV, but despite the advanced technology, Gu was able to build his car for about \$26,000, all costs included.

**Source:** Toronto Star Wheels

**URL:** <http://tiny.cc/firstcar>

**Related URL's:**

<http://tiny.cc/ubcfirstcar>

<http://tiny.cc/beetlefirst>



## A Word from Our President—Howard Hutt

### Hello and greetings:

My summer was very enjoyable and I hope you all had a fine summer as well. I was on a motor trip from Toronto to St John's Newfoundland and very impressed with the EV news, both in the newspapers and on the TV. I am referring to Mitsubishi's EV traveling across Canada only to be overshadowed by a lowly BC University student and his converted bug. That is the best performance to date that I know of and most certainly gives credibility to the future of EV's and distance available in a charge. Great performance and as many of us have owned a VW bug we can relate. What a clever idea to use Campgrounds 50 Amp service.

I think we will get renewed interest in our passion, the EV concept, whether it is the mayoral candidates debating street cars to subways (both EV's) or real serious EV Enthusiasts looking for colleagues.

The EV Fest is taking shape with a few glitches but it seems to be rounding out to an EV event we could all be proud of. So keep in mind the big date, Sunday, October 17, 2010 at the Toyota on the Park as "our day". Your support and indeed participation is needed. Our partners, The Toronto Hybrid Group, along with the good venue, Toyota is unique and it will show EV possibilities by the diversity of the exhibitors. Any ideas or contacts are still welcome. Contact Robert Weekly if you have anything for EV Fest and volunteers are needed on that day.

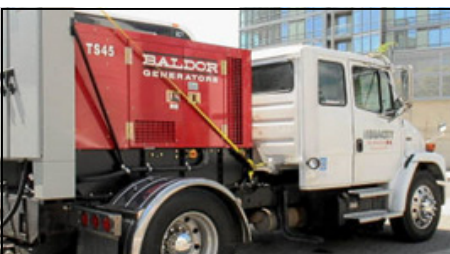
Speaking of Robert we owe him a great deal of thanks for his work on the news letter and I for one recognize the extra work it takes. Thank you Robert. And spread the word - EV's are on the march.  
Howard, President EVSC.



### Freightliner - From Page 4

electric car while it sits.

Up to 200 parking lots are getting charging stations through the Car Charging Group, a company that will install the chargers and maintain them, sharing the profits with the lot owners. The suggested price is \$3 for one hour of charging.



The generator on this Freightliner can recharge the i-MiEV in 30 minutes.

The chargers will be the 220-volt dryer plug variety – not the Direct Current Quick Charging version carried on the back of the Freightliner above.

**Source:** theglobeandmail.com

**URL:** <http://tiny.cc/imiev-trip>



### The Answer to Electric Vehicle Range Anxiety: Mobile

**Tech** Aug. 1, 2010, By Katie Fehrenbacher

GM and Nissan are steadily beating their PR drums in the run up to the launch of the first two mainstream, highway-legal, electric vehicles, the LEAF and the Volt, to be sold in the U.S. later this year. We've taken both cars for a spin and one of the things that stood out the most in my mind after getting close-ups with the cars, is how much the auto makers are leaning on cell phones, mobile technology and communication networks to help alleviate the "range anxiety" in the first-generation of electric vehicles.

Range anxiety? Because electric vehicles rely on a battery that holds a certain amount of power, and charging the vehicle in standard outlets takes hours (anywhere from four to a dozen), there's a dedicated range inher-

ent in battery-powered vehicles. For the series hybrid Volt, from GM, the electric range is 40 miles (a secondary engine kicks in after that to make its range "hundreds of miles") and for the all-electric Nissan LEAF, the range is 100



miles (see our range comparison chart Story). The fear for drivers that are used to being able to fill up their gasoline-powered cars at gas stations on every other block, is that they could be stranded somewhere with an empty battery and without a charge station.

## Range to go - From Page 5

Partly to combat this fear, both automakers have made significant investments into mobile technology, both in-vehicle navigation systems and services and mobile applications for cell phones. Last week when I drove the LEAF around the city of San Jose, California, Nissan's Director of Product Planning for North America, Mark Perry, showed me the LEAF's in-vehicle digital system called EV-IT that uses communication networks (via



AT&T) and a dashboard to keep the driver constantly updated about the range of the vehicle and the closest charge point.

When you press a button on the LEAF's steering wheel the dashboard shows the available range of the car, both what is optimal and the absolute outer limit. Another tab on the dashboard shows the top three closest charging stations and directions to the charge point. And yet another service shows the effects of the air conditioning on the range of the car (I turned off the AC and grabbed another 2 miles on my range).

The LEAF also has a dedicated iPhone application and LEAF-owners will be able to remotely monitor the state of charge of the battery, and can pre-heat or pre-

cool the car. To entice LEAF-owners to use the service, Nissan plans to roll the Internet, smart phone connectivity and advanced navigation into the base price of the LEAF.

The Volt also has a smart phone app that will enable drivers to control certain vehicle functions through their BlackBerry Storm, Droid or iPhone, including scheduling battery charge times, viewing whether or not the vehicle is plugged in, checking voltage at a charger, and getting text notifications of interruption or completion of a battery charge. GM will rely on its connected On-Star system as the heart of the Volt's digital services, and plans to bundle in five years of OnStar (which would normally cost \$1,500), a 7-inch touchscreen display, and a Bose audio system into the base Volt model.

There's a variety of important reasons why GM and Nissan (and many others) are making an unprecedented effort and investment into the connected communications systems for their electric vehicles. Automakers, utilities and car owners will use these connected systems to manage aspects of electric vehicle charging — like the rate of the charge, the location of the charge and the pricing of the electricity — in an entirely new way compared to gasoline-burning cars.

The next-generation of cars, in general, are also being influenced by the always-on, cell phone and

gadget revolution, increasingly offering intuitive user interfaces, a web connection and a set of standard applications to help drivers navigate and manage fuel consumption. Loading cars with driver-facing tech could be key to boosting automakers' margins on smaller, more fuel efficient vehicles.



But at the end of the day, I think one of the main reasons that automakers are emphasizing the always-on connection in these new electric vehicles is to help drivers overcome the fear of being disconnected (for too long) from the power grid. Particularly for this first set of EV's that will arrive before a tipping point of electric vehicle charge points have been built out to comfort anxious drivers. In that way, the IT networks that will connect the next-generation of green cars will be the safety nets that can digitally guide a driver to a chargepoint, and make sure that drivers aren't carelessly driving out of their outer most range.



**Source:** [gigaom.com](http://gigaom.com)

**URL:** <http://tiny.cc/range-to-go>

**Volt test drive video:**

<http://tiny.cc/volt-video>

**LEAF test drive video:**

<http://tiny.cc/leaf-video>

## Battle of the Batteries: Comparing Electric Car Range, Charge Times

Jun. 8, 2010, By Josie Garthwaite

Your mileage will vary — that’s one of the basic truths about driving, and it’s not about to change for electric vehicles. Depending on the climate, terrain, your driving style, vehicle maintenance and other factors, you can eke out, more or less, miles per gallon of gasoline. With electric vehicles, these factors will affect how far you can drive before it’s time to plug in and juice up.

With a gas station always at hand, it’s easy not to sweat how many miles you get on a full tank of gas. But with the upcoming generation of plug-in vehicles, automakers are battling what’s commonly referred to as “range anxiety” — prospective buyers’ valid concern that they might get stuck with a fast-depleting battery without a charge point in sight. As these vehicles have progressed through the development process, some data and anecdotes have emerged about how real-world performance compares to the range promised for various models.









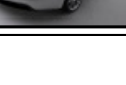
Most recently, BMW found in a survey of drivers participating in its demo of the electric Mini E last week that the model’s range has been coming in with about a third fewer miles than the auto-maker had estimated. Here’s the rundown on 12 upcoming and currently available plug-in models, their batteries and charge times, and some hints on what to expect as electric cars hit the road.

See Story for More Electric Vehicle Specs, including the Tesla Roadster, and more.



Source: gigaom.com

URL: <http://tiny.cc/charge-range>

Vehicle	Battery	Range Claim	Charging Claim	Real World Range
 <b>BMW Mini E</b>	35 kWh lithium ion. Air cooled.	156 miles Max 109 miles City 96 miles Hwy	26 hrs at 110V/12A 4.5 hrs at 240V/32A 3 hrs at 240V/48A	100-110 Mi/Charge 55-80 miles (Sub-0)
 <b>Chevy Volt</b>	16 kWh Liquid cooled. LG Chem-Li-Mn. (plus 1.4L gas engine).	40 miles.	10 hours at 120V 4 hours at 240V.	Bob Lutz has said he got 28 miles in Winter
 <b>Coda Sedan</b>	34 kWh	90-120 miles.	<6 hours at 240V.	Expect data to start rolling in later this year.
 <b>Fisker Karma</b>	22.6 kWh Li-Ion cells from A123 Systems. (plus 2.0L gas engine).	50 miles. Ttl: 300 mi.	Unknown.	Expect more info during the next six months.
 <b>Ford Focus EV</b>	23 kWh. Li-ion tri-metal cells from LG Chem.	75 miles (prototype)	6-8 hours at 230V.	Fleet trials underway
 <b>Mitsubishi iMiEV</b>	16 kWh	80 miles (1/2 that with heater on).	12-13 hours at 110V, 7 hours at 220V, 2.5 hours fast charge.	Some reviewers driving at highway speeds and in mountainous terrain have drained the battery after about 55 miles.
 <b>Nissan LEAF</b>	24 kWh	100 miles. (city driving)	8 hours at 220V. 80 percent charge in 30 mins - fast charge.	Based on the optimistic scenario of driving in stop-and-go city traffic in temperate climates.
 <b>Smart Fortwo ED</b>	16.5 kWh lithium ion	85 miles.	8 hours (100V). 3.5 Hours (220V) Depending on State of Charge	2008, 22 miles showed SOC down at 30% (Possible Lemon)
 <b>Tesla Model S</b>	42 kWh standard (larger premium batteries optional)	160 miles base 230-300 miles premium packs.	3-5 hrs at 220V/70A 80 percent charge in 45 mins at 440V.	Unknown.

## An Electric Airplane With Room For Two July 30, 2009, By Jason Paur (Included for Interest)

OSHKOSH, Wisconsin — Skipping the majority of the alphabet, the innovative designer who brought the single-seat Electraflyer C to the AirVenture



Electraflyer-C: AirVenture 08

show last year is back with a two-seater called Electraflyer-X.

Randall Fishman had the electric airplane niche to himself when he stared tinkering with a battery-powered hang glider a few years



Randall Fishman and the Electraflyer-X

ago. But he's got plenty of company this year. Yuneec and e-Spyder are among the outfits with electric planes at the show.

But Fishman isn't standing still. The Electraflyer-X is a sleek composite design with a liquid cooled electric motor. He says it will fly for two hours at 80mph



*Electraflyer-X is a sleek composite design with a liquid cooled electric motor. He says it will fly for two hours at 80mph.*

ago, and he was the first person to bring an electric plane to AirVenture when he flew the Electraflyer C in Oshkosh last

(no word on battery specs) and hopes to have a prototype in the air for flight tests by the end of

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August. As for all the competition he's got, Fishman said, "That's flattery, isn't it?"

"They saw how much attention it was getting and thought they should get in on the business," he told Wired.com.

Fishman is confident the quality and design of his airplane will

attract customers when he begins selling kits at some undetermined point in the future. He's a pioneer in an emerging field, but with a whopping one year or so under his belt he's a seasoned veteran of



a very young industry.

Source: Wired.com

URL: <http://tiny.cc/e-flyer-x>



Related Stories, URL's:

Plug and Fly: The Battery-Powered Plane Makes Its Debut

<http://tiny.cc/e-flyer-c>

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<http://tiny.cc/sonex-e-flight-0>  
<http://tiny.cc/sonex-e-flight-1>

The high-tech Audi R8 E-tron is being tested on public roads to start a development program that Ingolstadt insiders say will have the all-electric, four-wheel-drive supercar on sale in North America by the end of 2012.



Audi plans a 1,000-unit run of the R8 E-tron, with each car built to order. The program is a first step toward building higher volume E-tron-badged models.

Pricing of the electric R8 has not yet been revealed. However, Audi officials say it likely will cost more than the existing R8 V8, which sells for \$114,200 in the United States. As a comparison, the Lotus Elise-based Tesla roadster retails for \$109,000.

The prototype version of the R8 E-tron spotted undergoing testing on public roads adheres closely to the original concept wheeled out at the 2009 Frankfurt motor show.

Clues to the new Audi's electric driveline come by way of its complete lack of external cooling ducts. In keeping with the concept, it also has a blanked-off rear screen.

At 167.7 inches long, 74.8 inches wide and 48.4 inches tall, the R8 E-tron is 6.7 inches shorter and roughly the same width and height as the R8 V8. The R8

E-tron also rides on a wheelbase that, at 102.7 inches, is 2.0 inches shorter than its mid-engine Audi sibling.

There's no official word on whether Audi plans both right- and left-hand-drive versions of the R8 E-tron, but engineers say the modular nature of the driveline makes it possible to provide both without expensive re-engineering of the car.

The R8 E-tron is propelled by a four independent electric motors--two mounted in the center of the front axle and the other two within the rear axle. Each produces 78 hp and 830 lb-ft of torque. This provides the car with

**Initial plans call for the car's top speed to be limited to 124 mph.**

a total of 313 hp and an immense 3,319 lb-ft at the wheels--the latter relating to about 502 lb-ft in real-world terms, according to Audi.

The motors draw electricity from a 53-kilowatt/hour lithium-ion battery pack mounted behind the passenger compartment in the space usually taken up by the standard R8's gasoline engine. The battery and its associated electronics package, converter and wiring loom, weighs a total of 880 pounds. Each electric motor is mated to its own single-speed gearbox. The motors are cooled via the air-conditioning system.

Audi claims the production version of the R8 E-tron will be capable of a 0-to-62-mph time of about 4.8 seconds, making it 0.2 second slower than the R8 V8.

Initial plans call for the car's top



speed to be limited to 124 mph to protect the charge of the battery, although the final specification won't be locked in for another year.

In addition to the R8 E-tron, Audi is considering a smaller zero-emission sports car based around the R4 E-tron concept shown at this year's Detroit auto show. Also in the early stages of development is a new small car, to be badged the A2, running a similar electric system to the unit showcased at the Geneva motor show in the A1 E-tron.



**Source:** Autoweek.com

**URL:** <http://tiny.cc/R8-E-Tron>

**Relevant Stories, ideo's:**

AUDI R8 e-tron on streets Test Drive

<http://tiny.cc/R8-E-Tron-Vid>

R8 e-tron Wins Its First E-Car Race

<http://tiny.cc/E-Tron-Race>



## High-Voltage Heat: Chevrolet tortures the Volt in extreme Arizona testing

6/15/2010, By GREG MIGLIORE

The 2011 Chevrolet Volt is being torture-tested in hell. OK, not literally, but it's almost that hot deep in the Arizona desert, where engineers are putting the Volt through some of its final evaluations as it prepares to launch late this year.

In this round of testing, the Volt is being subjected to extreme heat for several hours. Chevy is baking it, if you will. Then engineers open up the car, crank the electronics and test the car on the track at General Motors' proving grounds to check for shakes and rattles. The cabin sealing also is tested, to make sure it's still intact.

The mercury hit 138 degrees in the cabin, Chevy says, and the Volt is holding up fine. This is all part of GM's Hot Soak Evaluation, where the temperature could hit 175 degrees inside the car. It's common for cars to be tested in extreme heat--no one wants their car to give out in July. But questions were raised early on as to how the Volt and its high-tech battery pack and propulsion systems would withstand extreme conditions. Chevy officials, as they have from the beginning, say the Volt is more than up to the task.

"The car performed well," senior durability test engineer Steve Pratt said in a statement. "The air conditioner cooled things off from our interior temperature of 138 degrees down to a nice comfortable temperature for driving."

The car is also doing fine in city driving. Interestingly, Chevy has hooked up a towing dynamometer to the Volt and simulated a grade of 2 percent to 10 percent, which the car has been able to handle. No, the Volt will not be equipped to handle towing, Chevy says.

**Source:** Autoweek.com, **URL:** <http://tinyurl.com/1Hot-Volt>

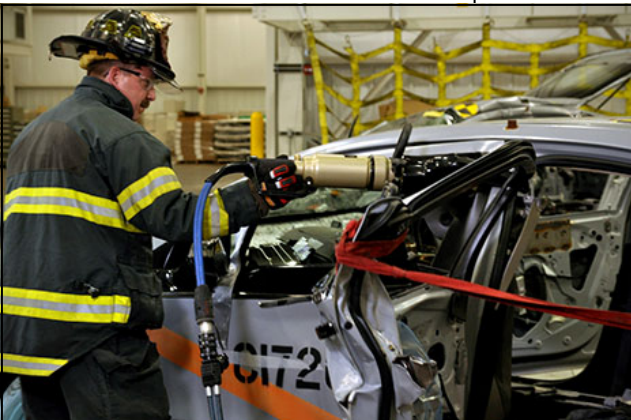


## Firefighters Cut a Chevy Volt to Pieces During Safety Training (Video)

06/07/10, by Michael Graham Richard, Ottawa, Canada ON

### Making Sure the Chevy Volt is Safe for First Responders

A friend of mine works part-time as a firefighter in a small town, and one of the things that he's



often talking about is how dangerous airbags can be if you are a first responder. They might

save the life of a car's passengers, but if they go off while you are crawling inside a car, or if you cut up the car in the wrong place and hit an unexploded airbag, that can cause big problems. But first responders are trained for this and are adjusting their techniques to minimize risk. The same is true with electric cars and plug-in hybrids, with their big battery packs and high-voltage lines.

### No Car is Safe if You Don't Know What You're Doing

GM writes: "Along with the Inter-

national Association of Fire Fighters (IAFF), International Association of Fire Chiefs (IAFC) and the National Emergency Number Association (NENA), Chevrolet and OnStar revealed the first automotive manufacturer-sponsored training program to educate first responders nationwide about electric vehicle technology."

The video below shows some of this in action, with a Volt pre-production model getting cut up really good in the name of safety.

See the Source URL for the Video



**Source:** Treehugger.com  
**URL:** <http://tinyurl.com/cut-a-volt>

**The Electric Vehicle Society of Canada**  
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# The Electric Vehicle Society of Canada

**We are a non-profit group of Electric Vehicle (EV) Enthusiasts, Environmentalists and Engineers. We are, vitally concerned with clean Electric Transportation.**

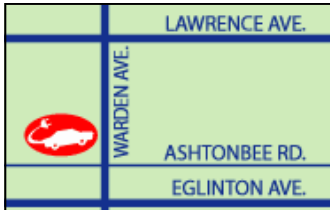
**We meet at Centennial College, Scarborough, Ashtonbee Campus, 7:30pm, room B216 on the third Thursday of the month, 10 months per year, excluding July and August.**

We have displayed Electric Vehicles at the Toronto Auto Show, Molson Indy, Association of Power Producers of Ontario (APPRO), Eco Wheels Show, Windfall Ecology Festival, The Electric Distributors Association (EDA), and at EV Fest.

We encourage vehicle conversions from Gasoline to Electric by Canadian Automotive Students and we are available to offer a seminar to assist the students. To purchase an EV we will try to offer information on make and availability.

Business \$100.00, Family \$50.00, Individual \$30.00, Senior \$20.00, Student \$20.00, and Spouse \$20.00: includes a bi-monthly newsletter, the "EV Surge". **Forward to: Memberships, Electric Vehicle Society, 21 Burritt Rd, Toronto, ON. M1R 3S5.** For information: Phone or Fax: 416-755-4324 or Email: [president@evsociety.ca](mailto:president@evsociety.ca)

For More information on the newsletter, send an email to EV Surge Newsletter Editor, Robert Weekley at: [editor@evsociety.ca](mailto:editor@evsociety.ca), Ask Howard for a copy, or check this link - [www.evsociety.ca/newsletter.php](http://www.evsociety.ca/newsletter.php)

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**Optional - Please Fill out this Questionnaire to help us better serve your interests and needs: (place an [X])**

I have an Electric Vehicle -  car /  truck /  bike/Trike /  Motorcycle /  Scooter /  Airplane /  ATV

I Want to  buy an Electric Vehicle . I want to  Convert an Internal Combustion Vehicle to an Electric Vehicle (EV)

I can offer EV Owners an EV Charging Point at my  home /  work, at  120V /  240V  For Free  For \$

My Other Interests are  Solar Power /  Wind Power /  Bio-Energy /  Hydrogen Fuel Cells  Energy Conservation