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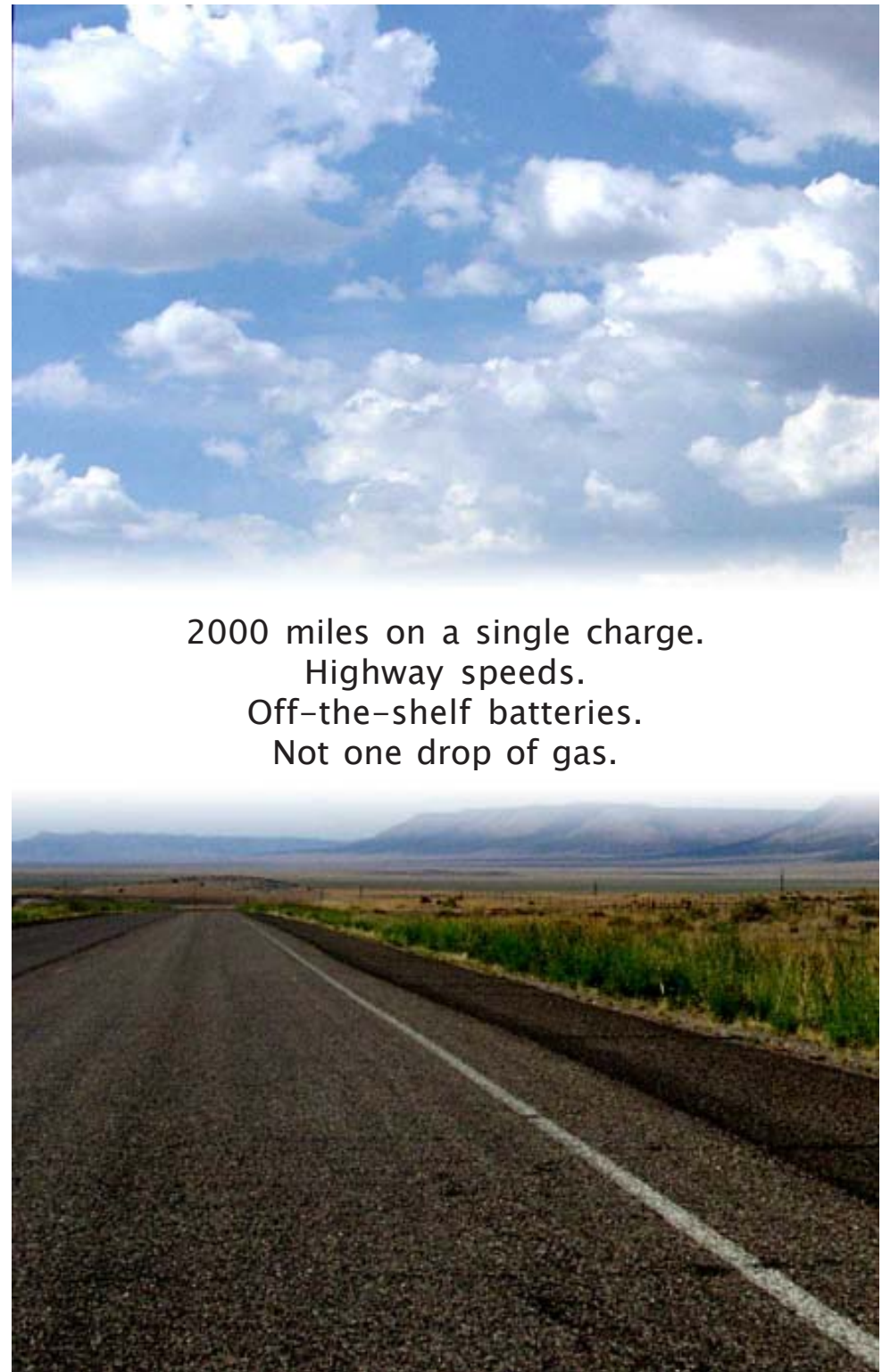


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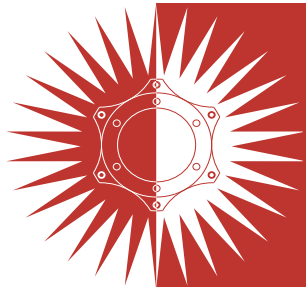
Smart choice for power

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The Stanford EV Project  
(650) 473 0471  
180 Stock Farm Road  
Stanford, CA 94305



2000 miles on a single charge.  
Highway speeds.  
Off-the-shelf batteries.  
Not one drop of gas.



# Stanford Electric Vehicle Project

## **What's our goal?**

Our primary goal is the construction of a new type of electric vehicle aimed at breaking several world records for pure battery electric range, by a huge margin (without using solar cells). This is a vehicle based on advances and systems developed for solar race cars and it uses batteries developed for the latest generation of laptop computers.

## **Who are we?**

Our team draws from some of the foremost expertise in ultra-efficient land vehicles in the Western hemisphere. Our members include the entire current Stanford Solar Car team, three Stanford professors, several alumni with experience in the electric propulsion field, and several EV industry professionals.



Prototype spaceframe chassis of the EV.

## **How are we going to do it?**

By combining the best lithium ion battery technology with the best vehicle technology. As batteries improve, university solar-powered race cars simply use fewer of them because the "rules" don't allow more stored energy. If you push the limits as far as possible and have a battery mass fraction of 70% or more, the range is incredible. The existing rechargeable EV record is about 400 miles. We are expecting 2000 or more miles. That is more than a factor of 5 improvement over the best record to date. We ultimately plan to drive across the country on a single charge.

## **Why hasn't this been done before?**

It is the recently-available incredible energy density in affordable, mass-produced, lithium ion cells that really makes this possible. The entire battery pack would use about 10,000 cells and cost about \$40,000 — less than the battery cost in an EV1 but with nearly 5 times the energy storage capacity. Automakers were waiting for automotive volumes to drive the battery costs down, but while they were waiting laptop computer volumes have already done it. No one has yet considered, or tried, combining the best lithium ion battery technology with the best vehicle technology. These batteries have only been available for the last two years.



The current design will integrate many off-the-shelf parts with custom components.

## **Excited? We are too.**

The EV Project at Stanford has a considerable amount of momentum from its members, as well as support from throughout industry. *But we need your help.* In addition to parts and raw materials for the vehicle -- including one of the highest-capacity lithium battery packs ever constructed -- we will need funding for some professional fabrication work, as well as for the actual race event itself. To see how you can help make our goal a reality, email [straubel@stanfordalumni.org](mailto:straubel@stanfordalumni.org), or arrange a visit to our shop at 180 Stock Farm Road by calling (650) 473 0471.