



Dear Sir or Madame,

The <u>University of Arizona Urban Solar Car Team</u>, comprised of eight students, is targeted to race their car in the <u>Shell Eco-marathon®</u>, March 26<sup>th</sup> – 28<sup>th</sup>, in Houston Texas. Their mission is simple: to design, build, and drive a custom car powered by solar energy and batteries that competitively completes the race with incredible fuel efficiency. The current car must be ready for testing by March 1<sup>st</sup>, and we are on target to meet this deadline. However, supplies and monetary resources are tight, and we need your help.

On behalf of the Arizona Research Institute for Solar Energy (<u>AzRISE</u>), a major partner and contributor to the project, I would like to invite you to become a UA Urban Solar Car Team sponsor through financial contributions in support of this team and their mission. We have developed a range of sponsor packages, all of which provide optimum exposure and value for your investment. By becoming an Urban Solar Car Team sponsor you will be partnering with the University of Arizona to be a part of the next generation of electric vehicle technology and to motivate and educate the next generation of drivers. Your contribution will go to meet our \$20,000 goal to take this student team and their urban solar car to Houston.

As you know, the future of powering cars is rapidly changing, and the public demand for greater fuel efficiency, fewer emissions and roadworthy conventionality is now obtainable. The UA Urban Solar Car will test several new technologies, including a rotating solar array designed to keep the cells aligned with the sun while the car is driving, new lithium ion batteries with individually controlled safety systems and supercapacitors, to be added after the race, to test improvements in performance that batteries cannot deliver. Don't miss this opportunity to showcase your company in the forefront of promoting electric vehicles and power.

Thank you for your time and consideration. Please see attached sponsorship options and contact Joey Pouliot with any questions at 520-425-0469 or via email at <a href="mailto:jpouliot@email.arizona.edu">jpouliot@email.arizona.edu</a>. We will be in touch early next week to discuss how you can be involved.

Thank you for your time and consideration,

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Ardeth Barnhart Co-Director, AzRISE Dr. Joseph Simmons Co-Director, AzRISE





The University of Arizona in alliance with University of Phoenix



| University of Arizona Urban Solar Car Sponsorship Options and Benefits |                             |   |  |  |  |
|--|-----------------------------|---|--|--|--|
| Level  | Donation                    | Benefits  |  |  |  |
| Bugatti  | \$10,000.                   | <ul> <li>Company spotlight at Urban Car Send Off &amp; Christening Party media invited</li> <li>Use of Solar Decathlon House for one additional event</li> <li>Ability to showcase the Urban Solar Car for one additional event</li> <li>Two VIP spots to drive a lap during Urban Solar Car post-testing</li> <li>Premier company logo on car transport trailer- 12" x 12" area</li> <li>All benefits included in Lamborghini level</li> </ul>               |  |  |  |
| Lamborghini  | \$5,000.                    | <ul> <li>Use of Solar Decathlon House for one event</li> <li>Ability to showcase the Urban Solar Car (post Eco-marathon race) for event of your choice</li> <li>Invitation to the Urban Solar Car test run for two of your company VIP's</li> <li>Urban Solar Car Team Jackets to feature 5K &amp; 10K sponsor logos on back</li> <li>Featured company logo on car transport trailer- 8" x 8" area</li> <li>All benefits included in Ferrari level</li> </ul> |  |  |  |
| Ferrari  | \$2,500.                    | <ul> <li>Company logo on car transport trailer- 6" x 6"area</li> <li>Two additional VIP invitations to Urban Solar Car events</li> <li>Framed photograph with Urban Solar Car and certificate of appreciation</li> <li>All benefits included in Porsche level</li> </ul>  |  |  |  |
| Porsche  | \$1,000.                    | <ul> <li>Company logo on Urban Solar Car and AzRISE web pages</li> <li>Company name on car transport trailer</li> <li>Project updates via e-mail</li> <li>Company name inclusion on sponsor board</li> <li>Name inclusion on all media material</li> <li>Two VIP invitations to Urban Solar Car events</li> </ul>   |  |  |  |
| Support-A-<br>Student  | \$250/student               | <ul> <li>Company name inclusion on sponsors board</li> <li>Name inclusion on all media material</li> <li>Invitation to Urban Solar Car events</li> </ul>  |  |  |  |
| Adopt-A-Power<br>Cell  | \$50/cell or<br>5 for \$200 | <ul><li>Name inclusion on all media material</li><li>Invitation to Urban Solar Car events</li></ul>   |  |  |  |











The University of Arizona in alliance with University of Phoenix



## University of Arizona Urban Solar Car Specifications

Car Name: UA Urban Solar Concept Car

Car Number: TBD
Project Time: 8 months
Team Size: 8 members

Testing Miles: TBD

Project Cost: \$80,000 (approximately \$30-40K in solar cells)

## **Dimensions**

Length: 330 cm (130 in) Width: 122 cm (48 in) Height: 122 cm (48 in)

Weight: 160 kg (352 lb) without driver

**Body** 

Vehicle shape: Two box hatchback with upright driving position Materials: Non-structural composite fiberglass body.

Chassis

Material: Chromoly space frame

Wheels: Custom Aluminum 16X4 inch, with 120/80/16 tires

Brakes: Dual circuit Wilwood hydraulic calipers on steel cross-drilled disc

Suspension: Front: Fabricated Chromoly A-Arms and suspension upright, coilover spring and shock.

Rear: Fully independent 5 link, push rod actuated coilover spring and shock.

Steering: Steering wheel, rack and pinion, Ackermann steering geometry.

Drivetrain

Motor/Control: Kelly Controls motor controller, Mars Brushless DC Motor

Power: Maximum power output of 7 hp

Controls: Potentiometer for throttle and integrated regenerative braking

Telemetry: TBD Based on Senior Design work.

## **Energy Generation and Storage Systems**

PV Array: Solon monocrystalline silicon and Emcore triple-junction Gallium Arsenide

PV Wattage: 350 watts PV Efficiency: 25%-29% Battery Type: Lithium polymer Pack voltage: 48 volts nominal

## Solar Racing Team History

The <u>UA Solar racing team</u> is in its 11<sup>th</sup> year and the current Urban Prototype Car will be the 6<sup>th</sup> car the team has built. More of the team's history can be found <u>here</u>.

| Car Name   | Race                             | Date               | Place   |
|------------|----------------------------------|--------------------|---|
| SolarCat   | Shell Eco-marathon Americas 2009 | April 19, 2009     | DNQ- Car body was incomplete                      |
| Drifter 2  | North American Solar Challenge   | July 10-28, 2008   | 10 <sup>th</sup> overall                          |
| Drifter    | North American Solar Challenge   | July 10-28, 2005   | DNQ- Received Good Sportsmanship Award            |
| Turbulence | American Solar Challenge         | July 2003          | 10 <sup>th</sup> overall                          |
| MOONSON    | Formula Sun-Michigan             | July 12-13, 2001   | 4 <sup>th</sup> in class, 9 <sup>th</sup> overall |
|            | American Solar Challenge         | July 15 - 25, 2001 | 1 <sup>st</sup> in class, 9 <sup>th</sup> overall |
| DAEDALUS   | Sunrayce 99 Qualifiers           | May 2, 1999        | 6 <sup>th</sup> overall                           |
|            | Sunrayce 99                      | June 20-29, 1999   | 24 <sup>th</sup> overall                          |