# Technical Assistance Request

ZolarBird requests the following technical help.

Computer-generated flight simulation of Zolarbird would be very helpful.

A strength evaluation on the existing carbon fiber components.

The mechanical evaluation of motor support structure of the nacelles is important to the design of ZolarBird.

Consultation on new developments in the speed of battery recharge.

Electrical consultation on the possible loss of signal from the wings to the motors through all the various components. (such as a voltage regulator, secondary battery current, re-generated current and throttle)

High efficiency solar cells made in the USA would be a major addition to ZolarBird.

Wind tunnel evaluations of our prototype.

An evaluation of our end cap design.

Zolarbird's solar cells are mounted on fire-rated ceiling tiles purchased from big box home improvement stores. These tiles are effective in handling the heat produced by the cells, however, they're heavy. We would like help in finding a much lighter weight material to replace them.

We are looking for a better way to adhere the cells to that material. I am now using a two-sided carpet tape which is challenging to install and improve upon.

An "airbag," style pontoon is preferable for our bird as it would allow the SolarBird to take off and land in water as well as dry land. We would like consultation regarding our pontoons.

We have done some initial investigations on fabricators in hopes of qualifying for the later stages of this contest. This was done by choosing from the map of Virginia from amongst the potential companies you provided. One company we would consider is in Waynesboro, VA. We would like help in further choosing the best company for our needs.

Consultation on long distance video and audio communication.

Fire suppression in ZolarBird's motor cabinets is a consideration. We are looking into the best system for our project, but we would appreciate input.

The Zolarbird Team would like a safety evaluation of all that we've done in the project.