

Decreasing the resistance on a single seat electric vehicle:

Body shell development.



The global issue of air pollution began with the rise of industry and it has been the manufacturers charged with creating better standards of living for the countries they support. In many developed countries, this has been addressed to the extent that it is no longer the dominant cause of pollution. This is now the burden of the transport sector and as such the need for alternative energy vehicles is the forefront of vehicle development.

With all major automobile manufacturers producing electric vehicles the way forward is looking promising. However, it can be seen on any day that most vehicles on New Zealand roads have a single occupant and this aspect is not being addressed.

One answer to this vehicle use inefficiency was the University of Waikato BEV project that created a single seat electric vehicle. One of the biggest issues however has been the high rolling resistance that is a by-product of using parts designed for conventional vehicles.

This project requires the design and production of an aerodynamic body system for the existing battery electric vehicle.

The project requires;

- a literature review to determine current status quo
- a full design schedule including, costings, computer models and validation
- a complete set of mechanical drawings to enable fabrication of the unit
- fabrication and testing of the new designs

Project advisor: Dr. Paul Ewart

Industry advisors: TBC

This project supports Wintec/University/Industry collaboration.