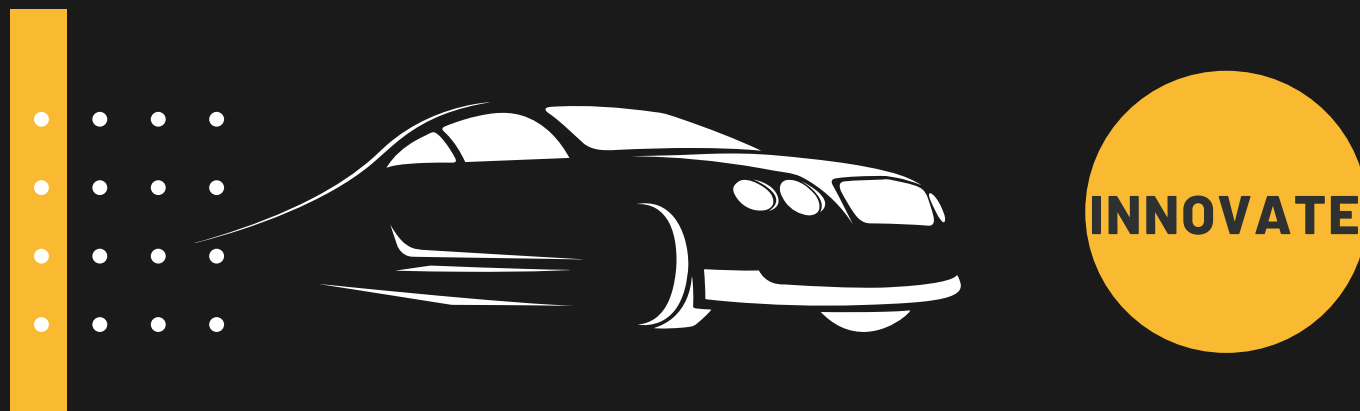


PROBLEM CARD 1: AUTOMOTIVE INDUSTRY

How can we, as engineers, tailor cars to suit different consumers? Innovation, creativity and testing is needed when designing cars in order to think about things in new ways! Engineers need to speak to people to make sure they design cars that are suited to a large variety of wants and needs, but certain aspects of design remain the same. But do they have to? What would your dream car be like?



DARREN PALMER -TEAM EDISON

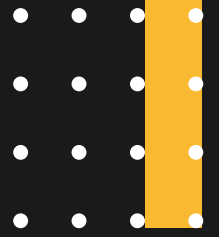
You'd think after 28 years of working for the same company that nothing would surprise me. I've been fortunate enough to work for Ford across many amazing teams on many exciting assignments.

Earlier this year I received a call that would challenge everything I thought I knew about Ford and our future. My team was asked to design and focus only on "electrified vehicles. To be successful, we must be willing to think of completely new ways to design and make cars.

The world is changing, and we have to listen more to what people want, so that we understand our customers and how their wants and needs are evolving.

The automotive industry in Australia is worth \$37 million dollars per year – that's a lot of money! Australia used to be a leader in car manufacturing, but over the past 50 years due to cheaper production costs over the past 50 years more cars are being made overseas. Even though the cars are no longer being built in Australia, we still design and make car parts and test how well the cars perform at Ford in Geelong. The Ford factory gives a lot of people jobs and training. Geelong Ford is well known for creating new ideas and products that are tested right here.





How do we customise cars so that they are suitable for different cultural and employment needs?

On a recent trip to Shanghai, Ford looked at how big families use their cars. Engineers started to understand how families use cars by watching them.

They brainstormed, researched and listed different needs for families of different sizes.

Ford can take these insights and ensure they are really designing vehicles in a way that is human-centered and right for each unique market.



How could we design a vehicle that is suited to different purposes?

What sort of jobs need to be mobile?

And how do these different jobs use their vehicles?

Mobile hairdressers and mobile dog washers have very specific needs for car designs. But can the same cars be used to pop down to the supermarket to buy the groceries?

Who would benefit from a vehicle that can be used for multiple purposes?