MOTIVATION

As Information Technology students, we are told to find real-world problems and solve them so here's a little history on the problem we see, in 1901 when speed limits were introduced to Australia and was designed to increase safety on our roads and reduce crashes than the speed camera was introduced in 1961 with a radar device inside to catch people speeding(Davis, 2020) as you can see from table below in the last 24 months 2,431 people have being in crashes relating to speeding, and in 2019 there were 4.7% more deaths on Australia roads than the same period as 2018(Roadsafety.transport.nsw.gov.au, 2020). Our CASD is going to save lives this should be motivation enough but the second is to reduce the number of crashes on our roads and third of all is that this project will make a difference in people's lives and that why we go into IT in the first place.

Seroius injuries crash data - June 2019 quarter

<https://www.bitre.gov.au/statistics/safety/fatal_road_crash_database>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 12 months ending 12 months ending  Jun 2019p Jun 2018 | | # Change | % Change |
| **RMS Region (CRS)**  Sydney | 2607 | 2902 | -295 | -10% |
| Northern | 562 | 661 | -99 | -15% |
| Hunter | 713 | 769 | -56 | -7% |
| Southern | 509 | 484 | 25 | 5% |
| South West | 233 | 255 | -22 | -9% |
| Western | 376 | 405 | -29 | -7% |
| **Total** | **5000** | **5476** | **-476** | **-9%** |
| **Behavior Factors**  Alcohol involved in crash 'Yes' | 335 | 362 | -27 | -7% |
| Speeding involved in crash 'Yes' | 1179 | 1252 | -73 | -6% |
| Fatigue involved in crash 'Yes' | 629 | 644 | -15 | -2% |
| **Safety Device Usage**  Driver - unrestrained^ | 60 | 61 | -1 | -2% |
| Passenger - unrestrained^ | 27 | 26 | 1 | 4% |
| Motor Vehicle Occupants - unrestrained^ | 87 | 87 | 0 | 0% |
| Motorcyclists- unhelmeted^^ | 26 | 38 | -12 | -32% |
| Pedal Cyclists - unhelmeted^^ | 35 | 43 | -8 | -19% |

Overall the CASD system will be controversial because it will changes laws for car owners and there rights and responsibilities in regards to driving their cars. This system will also reduce the resources needed by the government to regulate car safety to speed limits. I know first hand from working in a hospital as an orderly than the devastation that high-speed crashes not only from the victims but the family them selfs no only physically but mentally.

Then the CASD system is on-trend as the increase of technology for cars is increasing with more airbags being introduced into vehicles for safety, along with lane assist sensors that help guide the car back into the lane, sensors in front of the car to ensure that your car doesn’t get to close to vehicle in front and will hit the breaks if it detects obstacles in its path even Cruze control being the norm in cars today and this is all about driver and passenger safety and that’s what our device is designed for everyone safety.

Over the course of the next couple of years, our team would like to have learned and gain the knowledge and experience to have least created and designed a working scale model of our device along with the skills and team behind us to make it become a reality. This will demonstrate that our team has a vision and a passion for what we do. The employer will see this and so much more as teamwork is such a big part of the career path we have chosen and that we had a vision and no matter what our differences were we produced the CASD that works and has changed people lives and that what all IT professional want to do.

Roadsafety.transport.nsw.gov.au. (2020). *Statistics - NSW Centre for Road Safety*. [online] Available at: https://roadsafety.transport.nsw.gov.au/statistics/index.html [Accessed 17 Jan. 2020].

Unitypoint.org. (2020). *How Does Robotic Surgery Work? | UnityPoint - St. Luke's*. [online] Available at: https://www.unitypoint.org/cedarrapids/services-how-does-it-work.aspx [Accessed 11 Jan. 2020].