Dessa Shapiro

8/26/22

Period 4

**Electric vs Combustion**

**Video Notes**

Electric vehicles :

* They can accelerate more quickly
* They don't lose as much power
* Can go from 0-60 in a very short amount of time (1.8)
* In uses more renewable energy sources, and delves away from poutine resources like oil and coal
* A EV has a very low carbon footprint
* Has a lower environmental impact through production process as well
* Lithium batteries are recyclable
* They are safes(has a lower chance of catching of fire)
* They can be designed to have more crash room in the ground
* Average cost or E-gallon is less they half of gas and they require less maintenance then non electric cars
* Has less moving parts that can break and cause issues
* They are silent, and can cause less disturbance
* No oil change
* No spark plugs to replace
* Most EV’s have advanced technologies
* There is more space for evolution in EV’s
* Air pollution can cause major health concerns so EV’s are better for health

Combustion engines:

* Combustion engine can have about 35% efficiency
* Comparison: tesla vs bugatti they amount of energy is very close
* Not all batteries are equal
* Gas has a 5x volume and 20x mass advantage
* The driving scenario have a large affect
* Cold environments can negatively affect EV’s more than combustion cars
* And EV’s have to add on extra weight to go farther while combustion cars do not
* Trucks would have up to 15,000 pounds of battery added, and it will be very expensive
* EV’s energy density needs to improve

**Thoughts**:

**If you were to build a vehicle in Engineering Projects, would you either want to build an electric or internal combustion vehicle and why.**

Given the information from these two videos ( assuming the stats and examples were from reliable sources) I would prefer to work on creating an electric vehicle. Overall, I believe that electric vehicles will be a more significant part of the technological future. And have more room for development and improvement. I recognize some of these flaws with current day EV’s, but I think that is the reason I( or we) should start to learn more about them, and how to begin building them. It will be more difficult since it is still a relatively new technology, and there is less solid information about how to create a functional and effective EV. But from the future of automotive engineering, I think it’s important for younger people to familiarize themselves with this technology while it’s still in its early stages. Regardless of my personal opinions of their usefulness I also think that EV’s are going to evolve to be much better for the environment. The growth of the EV industry will lead to the growth of more sustainable energy plants and the creation of new forms of energy production.