

# Why the Tesla Model 3 Should be Your Next Car

ENGL 199 Descriptive Report

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## 1 Introduction

One might think that a Tesla vehicle would be expensive, given the many features a Tesla car has to offer. While the recently announced Tesla Roadster has a base price close to a quarter million[1], one may be surprised with Tesla's other consumer offerings, specifically the Model 3. I recommend the Model 3 for the average person, given its more budget-friendly price point, with all the characteristic features one would expect from a Tesla vehicle.

## 2 Autopilot

Autopilot is one of the first amazing features you may notice about Tesla vehicles, offering both convenience and safety. Currently, all vehicles in production by Tesla have sufficient hardware and software to drive without any human interaction. A Tesla car can be summoned with the click of a button, predict where you're going without you telling it, know that it should stop en route to charge if needed, and park itself without any user input. Tesla even claims that their cars are capable of driving at a safety level "substantially greater" than a human driver[2]. Tesla is able to accomplish this by including eight cameras, twelve ultrasonic sensors, and a front radar sensor which all work together to monitor the area around the car. It is not hard to see why Tesla makes such bold claims about how effective its Autopilot system is, because a mere human is physically incapable of constantly keeping track of the area around the car he is driving. A human needs to divide his attention between looking forward, checking the blind spot when changing lanes or parking, among other things one would typically look out for when driving. In contrast, a computer is able to monitor everything around the car simultaneously. The ultrasonic and radar sensors provide information to the computer for sensing objects, that a human cannot detect with his natural senses. For example, the radar sensor is very useful when there is thick fog that a camera or human cannot see through. The computer, powered by the powerful NVIDIA DRIVE PX 2 chip uses machine learning to improve driving for thousands of users every day. Other companies like GM have to test their autonomous driving systems with fleets monitored by their own employees, while Tesla collects real-world data (with consent) from its users and processes the data with machine learning to constantly push new updates and features to improve the autonomous driving experience. [3][4][5] The amount of real-world data Tesla has, combined with its sensors (which can detect danger faster than a human can react[6]) makes Tesla's autonomous driving system the most reliable on the market for consumers today.

## 3 Price

Price is a concern for most who are in the market for a new vehicle. Upon seeing all the features a Tesla car has to offer, one might think that surely, such a futuristic vehicle must cost a pretty penny. While Tesla does have more luxurious offerings like the Roadster and Model S, I would argue that the Tesla Model 3 is ideal for most users, starting at \$35 000 USD. This advertised price might seem deceptive until you consider that it is common practice in the auto industry to advertise a starting price, while most of the models available are sold at a premium of a few thousand dollars more expensive than the base model. The Tesla Model 3 is no exception here, with a maxed out model costing about \$59 000 USD[7]. A sensible configuration, however, need not be so pricey.

## 4 The Environment

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## 5 Conclusion

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