* The third iteration sought to finalize the design of the taxi and implement designs that would increase the comfortability of the users without compromising safety
* The functionality of the contactless pay and contactless door remained the same.
  + The door functions as it did in previous iterations, the user waves their hand in front of the door and it will automatically open.
  + The functionality of the contactless pay remained the same where the user would pay through an app on their phone
* To optimize the space used and to add another level of Covid safety a Covid-19 vaccine checker and temperature sensor ~~was added onto the pay machine~~, which would allow the driver the verify the vaccination status and temperature of the passengers
* An enhanced or possibly dual ventilation system was added for this implementation which would increase the comfortability of the and the safety of the occupants.
  + For fresh air it would simply go through the heating or cooling system and then be split between the sections and then be vented separately
  + Before the air is vented into the separate cabins spaces of the taxi
  + The ventilation system would have to be strong enough to create enough pressure to circulate two separate spaces
* As a final addition Covid safety items were added for the passengers to use, whether they had to pay for these or if they are free of use is still undecided.
  + If they do have to pay for the use of say masks or gloves it could go under the total price of the ride similar to how you have to pay for a plastic bag at a grocery.

Scanner Device

* Has a built-in camera that would scan for a QR code that would hold the information of the passenger’s vaccine status similar to the system that will be put in place in Ontario with the Covid Passport QR code.
* The secondary dot or circle would be a temperature sensor that would relay the temperature reading to the driver of the Uber or Taxi driver that would allow the driver to decide whether or not they should be allowed into the car or not based on temperature
* If the driver accepts the given temperature and the vaccine QR code is valid the door will open automatically i.e. touchless.
* Alternatively the driver could also just override the QR code camera to look at
* (Just as a general note these doors would have to slide back and forth much like a van door because it is a general safety risk if the doors automatically swing out or upwards) (This does not mean that the car has to be a van, just that the door has to slide back and forth.)
* Contactless doors use automated doors that are activated by a motion sensor. People simply have to wave their hand in front of the door for it to open

Payment

* As far a payment goes, if the system is something similar or meant to work with Uber the scanner on the outside of the car could be used to pay before the passenger enters the entire car.
* Otherwise the payment feature could be located in the plexiglass divider. Note as most if not all contactless payment options require internet connection the car would have to have it’s own internet connection or have to be tethered to the driver’s phone.
* Since most payment devices require some sort of main hub that is required to be connected, the machine could be connected to the car itself or we could say that it would be engineered to be an independent device that does not have to rely on a main console.
* It could have 2 screens, one for each side such that the passenger could pay and the driver could look over the payment and confirm everything was in order.

Separate Ventilation Systems

* Each system would require its own control ventilation system.
* Stronger a/c and heating system to be able to vent both “cabin” spaces
  + More Sophisticated and Stronger blower, which pushes air from ac/heating unit to the cabins would be required, in order to create enough pressure for the air to travel to both cabins.
* HEPA filters built into the system to filter the front and back cabin…
* HEPA filters are to be replaced every 2 years

Provided Covid-19 Items

* A set of gloves and masks are to be provided to each client after the client has been verified to be covid free.
* Sanitizers will be available and are to be used going in and out of the covid free taxi.
* We also implemented our second design of the passenger shield. This time, we decided to use a polycarbonate/plexiglass shield. We decided on this material because they are commonly used for Covid-19 barriers. They also don’t shatter, which is good for a car environment
* opted to use disposable paper (similar to what is used in doctor’s offices)

Notes:

Major Points to research

* What would the estimated cost be?
* What price should be charged in order to stay profitable (for the company, manufacturer, driver, and client) (This would have to be done after estimated cost)
* Practicability (is this redundant or is this something that is of use)

The third Iteration of our product includes a contactless payment option. An amalgamation device. Separate ventilation systems in which the A/C/Heating unit is connected to the frontside of the car, where the driver is and is separately connected to the backside of the car where the passengers are through the use of pipes. The car has a stronger blower motor to provide sufficient air pressure for air to flow into both sections and also includes a HEPA filter placed before the split of pipes which is proven to filter out harmful bacteria. Finally, disposable gloves and masks are available to clients as well as sanitizer.