Submission Date	9/10/2019
Project Name	EmergensUI - Vehicle Dashboard (GPS portion)
Student Names	Kevin Lieng, Quyen Lu, and Seung Min Song
Project repository	https://github.com/kevin-lieng/emegensui-automotive-ui
SensorsEffectors choices	BerryGPS-IMU V3 or Adafruit Ultimate GPS with gpsd
The database will store	the locations that is captured through the GPS sensors in latitude and longitude.
The mobile device functionality will include	the ability to allow the communication between the dispatcher with paramedics and/or doctors and nurses to allow for quick response times and reduced panic. In terms of digital dashboard functionality, the dashboard should be able to display the basic information car information when driving. (Speedometer, tachometer, odometer, temperature gauges, navigational system).
I will be collaborating with the following company/department	Industrial Design mentor, Professor Dennis Kappen
My group in the winter semester will include	Quyen Lu and Seung Min Song.
50 word problem statement	In the current state, medical emergencies can be made more efficient. The communication between dispatchers, paramedics, and doctors are not in sync and can be improved to allow for quicker response and preparation times. If this can be solved, the chances for survival for patients can be increased if they can be attended to efficiently.
100 words of background	The project that we are currently working on is a concept that may be implemented into future ambulances to allow the paramedics to easier communicate between the dispatcher and doctors at the hospital. This can all be achieved through a more technological or digital dashboard within future ambulances. It would essentially still function normally as an ambulance with more up to date technology to decrease the time needed to transfer patient medical information in real time between dispatchers, paramedics, and doctors. This can either be done through the digital dashboard or through the mobile application.
Current product APA citation	Formosa, B. (2019, February 13). Collaboration at Humber College creates augmented reality for emergency vehicles. Retrieved from https://www.gh360.ca/?p=7393
Existing research IEEE paper APA citation	Akin, B., Choi, S., & Toliyat, H. A. (2012). DSP Applications in Electric and Hybrid Electric Vehicles [In the Spotlight]. IEEE Signal Processing Magazine, 29(3), 133–136. doi: 10.1109/MSP.2012.2185863
Brief description of planned purchases	I plan to purchase: a raspberry pi 3 kit, either the BerryGPS-IMU V3 sensors or the Adafruit Ultimate GPS with gpsd sensors.

Solution description	The digital dashboard and mobile application within this project would allow for a more up to date approach to send and retrieve a patient's medical information. Although just a concept, if fully implemented it would declutter the outdated technology that is within current ambulances and allow for more space and functionality within future ambulances. All in all, becoming a "smart" ambulance.