Submission Date	1/17/2019
Project Name	Digital Dashboard
Student Name	Karan Raj Kanwar, Zhill Patel, Darren Prong
Project repository	https://github.com/KaranRajKanwar/DigitalDashboard-Final
SensorEffector choice	FT6x06 Capacitive Touch Driver, FXOS8700 Accelerometer/Magnetometer,TEA5767 Digital FM Radio Receiver
The database will store	Timestamp, touch location, current speed, source of transportation, favorite radio station, location
The mobile device functionality will include	A clean UI for viewing the speed ,viewing all saved data logs, grabbing the real time location using the mobile sensors, grabbing the real time speed using mobile sensors, audio control for the radio.
I will be collaborating with the following company/department	N/A
My group in the winter semester will include	Zhill Patel and Darren Prong
50 word problem statement	That a lot of older/modified vehicles don't have a speedometer which is a hazard when on the road, it is also illegal in some countries to not have a working speedometer in a motor vehicle. Also not being able to track where you have traveled in an older vehicle is hard due to the lack of technology.
100 words of background	This scholarly article talks about how we use measurement in our daily life, and where & why we use these measurements. How we use a dashboard cluster to utilize and grab information and how it's logged. It defines instrumentation and measurement and reviews basic principles. Case studies detail car, LOX tank, submarine data acquisition system, and medical device examples. It reviews sensor types, sizes and systems and covers basic instrumentation with a look at general configurations focused on areas such as inputs, conditioning and transformation, analog pre-processing, analog-to-digital converters (ADCs), outputs and basic processing.
Current product APA citation	Auto Meter® - User Configurable LCD Dash Display. (n.d.). Retrieved January 17, 2019, from https://www.carid.com/auto-meter/user-configurable-lcd-dash-display-mpn-6021.html?singleid=172937519
Existing research IEEE paper APA citation	Fowler, K. R., & Schmalzel, J. (2005, April 10). Introduction to Instrumentation. Retrieved January 16, 2019, from https://ieeexplore.ieee.org/servlet/opac?mdnumber=EW1016
Brief description of planned purchases	Our purchases include Raspberry Pi 3 B, case, power supply, heatsink, micro SD card, HDMI cable, wireless keyboard, wireless mouse, 2.8 in capacitive touch screen, screen faceplate,speakers, antenna

Solution description	The solution we came up with for this problem is creating a portable mini dashboard that can be mounted onto the surface of the source of transportation. When the dashboard is mounted the user is required to select the type of vehicle, such as go-kart, bike, scooter and anything with a handle to support the device. Once the dashboard is installed, your current statistics will be saved as data logs on your dashboard. Radio controls will also work off the touchscreen for a interactive experience. The functionality can be replicated on the mobile device through connectivity.