Submission Date	2017-09-18
Project Name	SensorEffector - Voice Recognition
Student Name	Alexandra Belen
Project website	AlexxBelen.github.io/SensorEffector
My project will	Take a spoken word as an input to control a camera.
The database will store	Voice commands and pictures
The mobile device functionality will include	Camera, Camera filters and other basic camera features.
I will be collaborating with the following company/department	Humber College
My group in the winter semester will include	Bojan Lazic , Neille Lorenzo
50 word problem statement	People have different voices and way to pronounce words. The sensor can have difficulty recognizing the words or commands given to it. The program might need to be “trained” with a new user’s voice. A command will be recorded multiple times into a microphone until the sensor can recognized it without delays or misunderstanding.
100 words of background	The voice recognition is a technology which convert phrases or sounds into electrical signal that are put into coding patterns where meanings will be assigned. Voice recognition systems can be set to handle how commands will be implemented by either continuous speech, connected or discrete words. This project will handle discrete words that would require user to only give one word command. Similar to this concept is the camera timer which also allow user's hands to be free when taking their picture. Also, many devices including Apple’s Siri, Window’s Cortana and Google Assistant uses voice recognition to take commands from the user.
Current product APA citation	CanaKit.(n.d.)*CanaKit Raspberry Pi 3 Complete Starter Kit - 32 GB Edition.* Retrieved from https://www.amazon.ca/CanaKit-Raspberry-Complete-Starter-Kit/dp/B01CCF6V3A/ref=sr_1_1?ie=UTF8&qid=1505714765&sr=8-1&keywords=raspberry-pi SunFounder.(n.d.)*SunFounder USB 2.0 Mini Microphone for Raspberry Pi 3, 2 Module B & RPi 1 Model B+/B Laptop Desktop PCs Skype VOIP Voice Recognition Software*. Retrieved from https://www.amazon.ca/SunFounder-Microphone-Raspberry-Recognition-Software/dp/B01KLRBHGM/

Existing research IEEE paper APA citation	Berdibaeva, G. Bodin, O. Kozlov, V.(2017, July 17)*Pre-processing voice signals for voice recognition systems.* Retrieved from http://ieeexplore.ieee.org/document/7981748/
Brief description of planned purchases	Raspberry Pi 3, Microphone for Raspberry Pi 3 Voice Recognition, Camera Module lens
Solution description	This project will provide hands-free experience when taking pictures and using other features of the camera app. This application is useful for when the users can't physically touch the camera. For example taking the picture from a tripod and many other convenience of being able to operate a device with just your voice.