Submission Date	2019-09-10
Project Name	Lumi Monitor
Student Names	Gino Seridon, Kyle Voduris, Harsimran Saini
Project repository	https://github.com/gseridon/LumiMonitor
SensorsEffectors choices	Motion Detector, Light Sensor, Microphone, LED Lights, Audio Speakers
The database will store	Information about active/inactive times and duration, user login to account for personal customization of Lumi, audio recordings and music storage
The mobile device functionality will include	Ability to adjust and customize the monitor's lights, activation based on surroundings (motion/light/sound detection), viewing data infant data on times of sleep (and duration), as well as the played audio (lullabies) and its volume.
I will be collaborating with the following company/department	Humber College School of Media Studies and Information Technology
My group in the winter semester will include	Kyle Voduris, Harsimran Saini
50 word problem statement	Designing a baby monitor with a working lamp and audio input and output system with respective sensors. This device should allow the newborn's parents to better monitor their child, and alert the parents during the child's times of need via an associated mobile device.
100 words of background	With baby surveillance in mind, Lumi is designed to provide a customizable nightlight using an adjustable LED, as well as a working audio feed to input the surrounding sounds and output lullabies. The device can play music or an audio feed directly from a mobile device. The volume and audio type can be adjusted. This device will be able to record times when the child is awake, as well as times of sleep.
Current product APA citation	Pampers. (n.d.). *Lumi by Pampers* . Retrieved from https://www.pampers.com/lumibypampers?gclid=EAIaIQobChMIy-7Mypa65AIVFLbICh3S-A2PEAAYASAAEgJy4vD_BwE
Existing research IEEE paper APA citation	Jabbar, W., Hamid, S., Almohammedi, A., Ramli, R., & Ali, M. (2019). IoT-BBMS: Internet of things-based baby monitoring system for smart cradle. *IEEE, 7,* 1-15. doi: 10.1109/ACCESS.2019.2928481
Brief description of planned purchases	Raspberry Pi, Speakers, Microphone, RBG LED Strip, Motion/Light Detector
Solution description	The raspberry pi will have the processor. The LED and speakers will be activated by both the motion sensors and the light sensors. The presence of motion, light and sound near the monitor will determine the activity of the LED and the speakers. The LED will act as a customizable baby lamp that will adjust based on motions near the monitor. A microphone is used to pick up sounds near the baby and can activate the speaker to play music or play audio feed from a connected mobile device. We plan to improve on the design and allow more freedom with customization and convenience for new parents.