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| Submission Date | 2017-09-15 |
| Project Name | Surveillance Cam |
| Student Name | Mykal Bailey |
| Project website | https://github.com/mykalbailey/Surveillance-Cam |
| My project will | My hardware project proposal is to create a surveillance camera. A camera will be on swivels controlled by servo to allow horizontal and vertical movement. This will allow for flexibility with viewing angles. It will adjust to lighting in the area to provide the clearest view possible. It will also have different surveillance options and settings to satisfy users needs. |
| The database will store | The device will be programed to take snap shots or video clips periodically throughout the day. These snapshots or video clips will be saved locally on the device then sent to the server. |
| The mobile device functionality will include | The mobile device functionality will include the ability to override the cameras automated functions. It will provide a live feed and will give the user the ability to manually control the camera. This means the user will be able to use the application to change viewing angles and take snapshots or record video on demand. |
| I will be collaborating with the following company/department | I have not concluded what what companies or departments I will be choosing to collaborate with yet. |
| My group in the winter semester will include | My partners will be Gozie and Bradey. |
| 50 word problem statement | Having this camera will eliminate the need to physically be present in a specified location to be aware of what is happening. You will be able to open an app to have a live stream. With the multiple surveillance options it will save users money spent on server and physical storage space. |
| 100 words of background | Technology is only getting more powerful. This leads to the need of more storage space and memory to operate these powerful pieces of technology. When it comes to surveillance, you want to be as efficient as possible. Media files do take up a lot of space and does so very quickly. In order to keep a surveillance system up and running there needs to be a structure employed that keeps the most important files and gets rid of the rest. The type of structure that is placed should factor in the way files are stored and move. For example: Saving files locally on a hard drive or directly to a server. Thus, having a bad system could cost the user more money or the loss of important data. |
| Current product APA citation | Surveillance System and Security Camera System Storage: Hard Drive Guide | Seagate. (n.d.). Retrieved September 14, 2017, from http://www.seagate.com/ca/en/tech-insights/video-surveillance-security-camera-system-hard-drive-storage-guide-master-ti/   The History of Video Security Cameras [Infographic]. (2012, January 16). Retrieved September 14, 2017, from https://www.supercircuits.com/resources/blog/the-history-of-video-security-cameras |
| Existing research IEEE paper APA citation | Battaglia, F., & Iannizzotto, G. (2012). An open architecture to develop a handheld device for helping visually impaired people. IEEE Transactions on Consumer Electronics, 58(3), 1086–1093. https://doi. org/10.1109/TCE.2012.6311360  Wu, J., Law, M. K., Mak, P. I., & Martins, R. P. (2016). A 2- µW 45-nV/ #x221A;Hz readout front end with multiple-chopping active-high-pass ripple reduction loop and pseudofeedback dC servo loop. 1 IEEE Transactions on Circuits and Systems II: Express Briefs, 63(4), 351–355. https://doi.org/10. 1109/TCSII.2015.2504944 |
| Brief description of planned purchases | $50 - Raspberry Pi 3 (with power supply)$25 - USB Cam$10 - Pan/Tilt Bracket$15 - Servo(x2) |
| Solution description | My proposal is to build a surveillance camera that will be able to move in 2 dimensions. A flexible automated device with the ability to take snap shots and or record video clips that will be stored in the cloud. It will be coupled with a mobile device application giving the user full control of the camera and its settings. The mobile application will include the ability to control what is stored to the cloud. It will be a more affordable product alternative to other devices with similar functionality. |