H00dB0t: Next-Gen Surveillance

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This project revolved around the manufacturing of a fully operational ground surveillance vehicle that could be the revolution in not only vehicles as a class, but also surveillance and security. We decided on this project after we learned that the frequency of altercations at our school highly increased and we wanted to find a better way to alert the security guards, as they usually do not arrive until after the altercation is over. In order for this to be successful, we knew that there would be a lot of work required and we were willing to accept that challenge. First, there was the matter of constructing a frame that would be able to traverse around the school with ease, and thus, we decided on a rover. The frame was actually designed using the Maker Bot designing software known as TinkerCad. After which, the design was then printed using our Maker Bot 5th Generation 3D Replicator. After building the frame, the long and tedious process of both designing the code and uploading that program into the drone came into play, and that was no easy task. In order to successfully code the rover, we needed a brain. From there is where the Arduino came in. Our Arduino Uno was used as the mainframe for the rover, and it was met with immediate problems. Originally, the code would not upload to the Arduino for an unknown reason and despite various changes (swapping ports, buying a whole new Arduino, using separate connector cables, even possibly considering redesigning the entire project), the code would not upload. There was also the inconsistencies of having to purchase several Arduino models due to shortages and fires. Despite these inconveniences, we are still continuing to make advances in our works and plan to have better, more prosperous results in the near future.

Awards Won: