

**Group 025: Charu Jain, Maxine Deines, Bunty Patel, Akshay Sardana**

**Advisor: Hana Godrich**

### **Abstract**

For years drones have been the awe-inspiring child of the technology world, sparking interest among children to seniors. They have been utilized extensively for video recording and recreational use. With all of its qualities, drones are still lacking the ability to think on its own. Currently an overwhelming majority of drones blindly follow the user's commands. The drone lacks a sense of its own surroundings, crashing into trees and walls more often than not. Our goal is to forever solve this problem by establishing an anti-collision system so that the drone can react to obstacles in its path. In essence, we want the drone to override user controls and avoid an obstacle, if there is one in its path. Taking our ambitions one step further, we also want our drone to follow the user via a GPS module. This will allow the user to conduct their recreational activity while having the drone record the user from a safe distance, while avoiding obstacles. A drone with an anti-collision system also has the capability of being used for activities other than those related to recreation, including shipping and surveillance. The possibilities are truly endless.