Multi Drone Task Allocation

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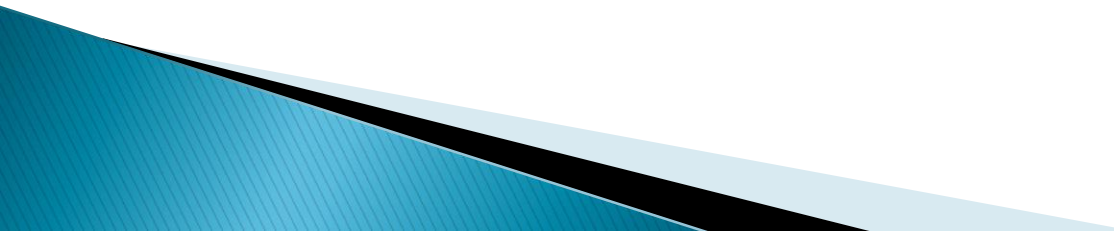
Overview

- Background
- User requirements
- Requirements Analysis
- Project Plan

Background

- **Multi drone task allocation (MDTA)** consisting of coordinating a team of drones and assigning them tasks
- This task includes the following subtasks:
  - Target search
  - Task Allocation
  - Drone monitoring

User Requirements

- Target search or visitation
- Drone task allocation
- Drone collision detection
- Restricted area avoidance

Requirements Analysis

- Coordinates of the location
- Drone monitoring
- Optimum path
- Task efficiency

Repetition

Collision
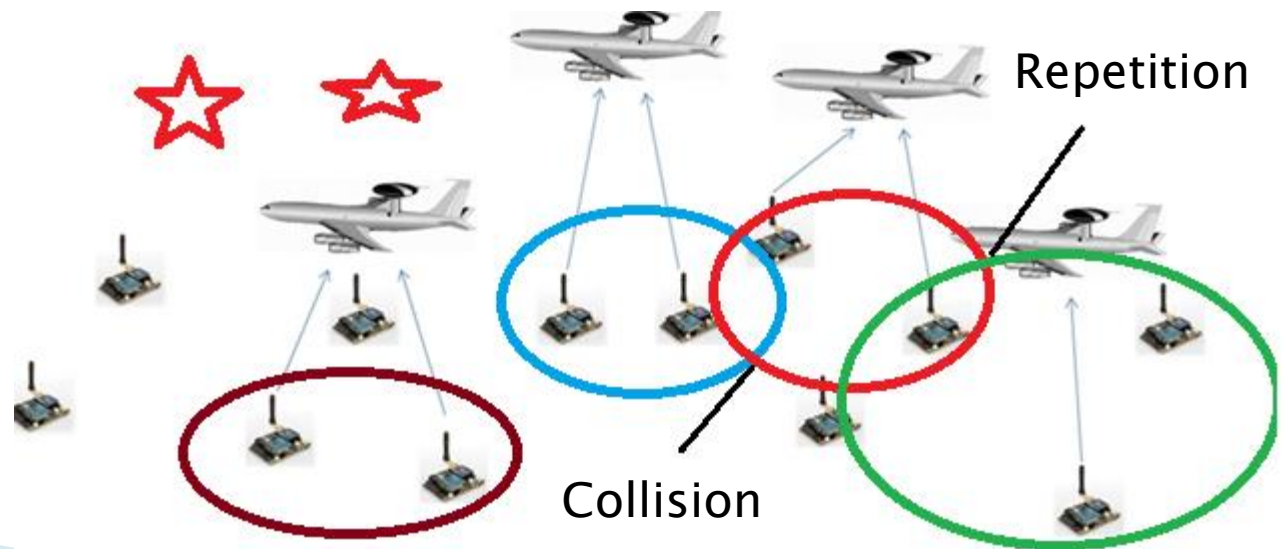
Tools

- Parrot Bebop Drone
- Node.js
- Parrot SDK

http://goo.gl/rPECeJ

Project Plan	
Goal	Date
Conduct a literature review on multi drone task allocation	Term 1
Learn node.js	Term 1 – Term 2
MTDA model design	Term 2
Develop target visitation solution	Term 2
Develop collusion detection solution	Term 2
Develop collusion correction solution	Term 2 – Term 3
Develop task allocation and management solution	Term 2 – Term 3
Implement solutions	Term 3
Run simulations to test solution	Term 4
Run actual field tests	Term 4

References

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Questions