

Progress Presentation-I

e-Yantra Summer Internship-2018
<Multiple Drone Control>

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Overview of Project

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Overview of Project

Overview of Task

Task
Accomplished

Challenges Faced

Future Plans

Thank You

- Project Name: Multiple Drone Control
- Objective: To control more than one drone by a single master.
- Deliverables: Video tutorials (along with scripts) explaining each module.

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Project Task List		
Task No.	Task	Deadline
1	Understanding the current pluto drone ROS package	2 day
2	Updating single master multiple client node to receive data from the drones	3 days
3	Position hold of both drones	7 days
4	Coordinated waypoint navigation using whycon	7 days
5	Exploring drone drone communication	7 days
6	Documentaton	4 days

Task Accomplished

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- Updated single master multiple client node to receive data from the drones.
- Each drone in the network acts as Station and is connected to a single Access point.
- Commands are sent by defining unique topic names for each drones.
- Separating each drone under camera using whycon:- Separating each drone identity under camera using same type whycon marker.

Challenges Faced

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- Communicating with multiple drones with socket programming and ROS.
- Importing more than one Ardrone model with unique topics in Gazebo.
- Seperating the drone identities in whycon markers.
- Stabilizing the yaw of the drones due to magnetometer error.

Future Plans

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- Simulation on Gazebo showing coordinated motion of more than one drone .
- Efficient communication between drones and access point taking into consideration the latency due to internal and external factors.
- Coordinated motion of more than one drone along a specific path.

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THANK YOU !!!