

# Project Glasswing

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# Autonomous Drones



- Search and Rescue Missions
- Transportation and Delivery
- Film and Photography
- Agricultural Crop Spraying
- Complete Mapping of Ecosystems and Their Microenvironment

# Our Sponsor – Dr. Alexander Shenkin



- Background in Computer Science, Electrical Engineering, Physics and Forestry
- Studies forest structure and its impact
- Uses simulated maps of real-world environment for testing

# The Work Flow Issues



# The Useful Solution

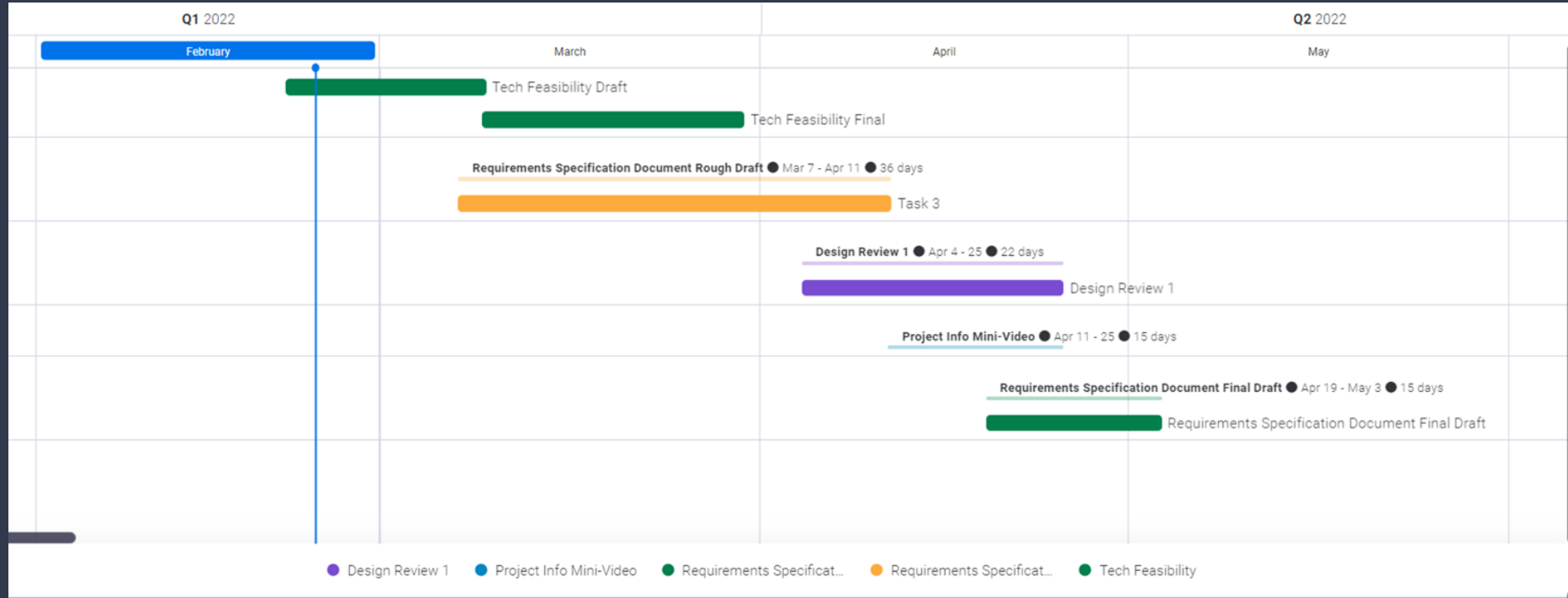


- Self Autonomous Drone
- Detect and avoid 1 cm objects and larger
- A UI which details the drone's direction to move, and how far
- Create routes safe to travel given the size of the drone

# A Powerful and Long Lasting Solution

- A display screen showing the user the planned path to take through the forest/obstacle
- Goal-oriented navigation to visit as much of the space as possible

# Our Plan of Attack



# A Well Done Project Would...

- Have lasting impacts on studying ecology and micro-environments of forests
- Create a powerful, expandable, customizable module
- Remove humans from dangerous tasks