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# Tower Dropper

Group Z

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<https://github.com/USI-Projects-Collection/FinalProject-Robotics.git>

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## Setup

To run the code follow the setup and execution instructions provided in the `README.md` file included in this repository.

# 1 Introduction

## 1.1 Objectives and Success Criteria

# 2 Workflow of the Project

## 2.1 Global Path Planning

### 2.1.1 Algorithm Choice & Rationale

### 2.1.2 Implementation Details

### 2.1.3 Tests & Metrics

### 2.1.4 Challenges Encountered & Fixes

## 2.2 Orbit Controller

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## 2.3 Weak-Spot Detection & Shooting

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# 3 System Integration

## 3.1 ROS 2 Node Graph & Communication Channels

## 3.2 Integration Strategy and Version Control

## 3.3 Observed Failure Modes & Mitigations

# 4 Results

# 5 Conclusion & Future Improvements

## 5.1 Potential Improvements

## 5.2 Unexplored Ideas