

## Group 1 Final Project Proposal Review

Reviewer: Tony Le ([anthony.le@utah.edu](mailto:anthony.le@utah.edu))

**Title:** Fire of Eidolon Final Project Proposal

**Clarity of Presentation:** In general, the premise of the project was described sufficiently with details of game play and rules in this proposal. There were some vague statements in the introduction that I would consider extraneous and could be removed. The introduction and original game description sections could effectively be combined into a more concise introduction/background section for the proposal. I would outline the introduction as a funnel of information (broad → specific) – you begin by describing the overall background information, then highlighting the problem statement/challenges you plan to address in your project, and finally stating the specific objective of your project, which sets you up nicely to go you're your proposed methods and motion planning definition. The environment, including the goal set, action set, state set, etc..., were explicitly outlined; however, the motion planning techniques/strategies were not clearly stated. I would provide the motion planning technique(s) you are considering in your project and maybe briefly justify why these techniques would be appropriate for your environment/problem. Another component that should be discussed, at least briefly mentioned, is the framework of the multi-agent system, specifically how the robots would be cooperative. The project goals were clearly defined as completing a variety of mazes with different settings/constraints.

**Relevance of Project:** This proposal draws direct correlations between the project and the course by framing a board game as a motion planning problem where there will be exploration and path finding. The concepts of how to define a problem as a motion planning problem were outlined clearly; however, the motion planning techniques to tackle the problem were not discussed. Therefore, it was difficult to discern what methods from the course would be used or built upon in the project.

**Quality of Project:** The project outlined in this proposal seems complex and high quality. It will be interesting to see how the dynamic environment and multi-agent system are handled. This project will certainly challenge the students and will leverage the coursework – ultimately, reinforcing the education of the students. I'm excited to see the results!

**Evaluation of Project:** The success of the project was defined as completing the maze and escaping the dungeon. The proposal describes a couple of different cost constraints in the problem, which implies that outcomes will likely be evaluated based on how much cost is accumulated to reach the goal. I would provide some details on how these simulations will be implemented or how you plan on visualizing the problem and the solutions/paths to demonstrate the outcomes of your methods.

**Broader Impacts:** If successful, I believe the proposed project will introduce the class to ways to combat dynamic, changing environments with a multi-agent system and motion plan with interesting constraints and features, such as the specializations, barriers, and cultists. The broad game theme is an excellent way to present concepts from the course to people outside of the group/class.

**Intellectual Merit:** Once the motion planning techniques are described, the project's results will hold more intellectual merit and benefit the class. The framework for adapting a board game into a motion planning problem was presented, but the specific techniques and why they will be the most appropriate for solving this problem was lacking.