Project Five

# **Due: Monday 12/10 by 11:59 PM**

This is a group project, so the description below applies to your team.

A couple of weeks ago I had you consider potential board games that could be used to create a paper AI. For this project I’m going to have your team actually select an analog game and create a simple paper AI for it.

The project has the following requirements:

1. The game must be one that is generally available through commercial outlets. Games that have not been published commercially will not be allowed for this project. It is okay if the game is out-of-print as long as the rules and other information about playing the game are generally available.
2. The game cannot have a paper AI associated, so games like Scythe and Conflict of Heroes cannot be used.
3. By analog game I am referring to any type of physical game, whether it’s a board game, dice or card game. If you are considering coming up with an AI for a game that might be somewhat questionable, make sure you contact me first before you go too far along down that path.
4. Your paper AI will be submitted electronically, so if you are going with a card based approach you will need to scan those cards in so they can be submitted as either pages of a Word document or a PDF type of file.
5. Your paper AI needs to take into account the current state of the game. Information that the AI player has and any information on the board can be used in having the AI making its decisions. It is possible that the human player will have information available to him or her that is not available to the AI. (For example, in games where each player has a hand of cards in most cases the other players do not know what an individual player has in their hand.)
6. What you will be submitting is a set of steps that will be carried out each turn of the game to allow the AI to make a legal move or moves in the game. It is OK if the steps are based on something like the draw of a card or some other form of randomization, as long as the game state is taken into account somewhere in the process.
7. Make sure that you playtest your AI to ensure that it is playing correctly and can handle all of the situations that may come up during the course of the game. (For example, the AI should be able to detect if it has won or lost the game during a turn.)

Think about the game you want to use carefully, because you don’t want to get into a very complex game and discover that the AI is very difficult to create. The best games for this type of assignment are probably going to be fairly simple with a minimal set of components.

Your AI should not be too complex to use. If it takes more than 3 – 10 steps to figure out a move, you are probably getting too complex.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project 5 Rubric

|  |  |  |
| --- | --- | --- |
| Criteria | Max Pts | Earned Pts |
| The game selected is or was commercially available | 5 |  |
| Information on the game is readily available. | 15 |  |
| Paper AI makes valid moves each turn | 30 |  |
| Paper AI takes the current game state into account | 15 |  |
| Paper AI can account for all potential occurrences within a turn | 15 |  |
| Instructions on how to use the paper AI are clear and well written | 10 |  |
| The paper AI is not too complex to use | 10 |  |
|  | 100 |  |