

Artificial Intelligence

Contest 1

Due: 5 pm Sunday, September 17. Late assignments will not be accepted.

Goal: Write an agent to solve the fifteen puzzle that finds a solution (not necessarily optimal) as quickly as possible.

Files: The files are available in the class git repo. The the course page for instructions on access the git server. The name of this assignment is `contest1`. You should only change name, `MySearch.py` `MyFifteenPuzzle.py` and `Description.txt`.

Submission: Submitting your files will automatically test your code and post results on the contest page. This way you know how you perform relative to your classmates and the reference implementations. Note that the final grading will be using a different set of test instances. Programs will be given a maximum time of 2 minutes to initialize their algorithms and 30 seconds per puzzle.

Grading: Each assignment will be graded as follows:

40%	Performance on test problem instances relative to reference implementations
20%	Code quality
20%	Description of algorithm used and why it is effective
20%	Documentation of improvements to your algorithm in you git log files
up to 5% bonus	Performance relative to your classmates

tabular: To do well consider the following:

- Submit agents often. Test them, find improvements, document and submit again.
- Try basic algorithms/heuristics first.
- A few webpages worth looking at
 - <http://http://kociemba.org/fifteen/fifteensolver.html>
 - <https://heuristicswiki.wikispaces.com/N+-+Puzzle>
- I will keep adding ideas here, check back regularly.