

MCTS_MODIFIED TABLE

Node/Tree size	draws	wins	loses
400	0	56	44
500	0	64	36
600	0	68	32
700	0	57	43
800	0	58	42

Three main set of games were: 400 nodes, 600 nodes, 800 nodes

Experiment 2 – Heuristic Improvement

Next, have your modified version of MCTS play against the vanilla version with both having equal tree sizes (suggested size: 1000). Submission analysis: Does the modified version win more games?

- Yes, there was a consistent win rate for the mcts_modified version. Since the number of trees was not 1000 at the beginning, there were smaller win differences between the two bots.

Does this change if you increase or decrease the size of the trees? Submit 3 sets of 100 games (each set with different tree size)

- No, it doesn't change the fact that it will continue to win, but it does change the number of wins. However, when we used fewer nodes/trees, there was a smaller difference in wins between the mcts_modified and the mcts_vanilla.