
 Playing Matches

Match #	Opponent	AB_Improved		AB_Custom		AB_Custom_2		AB_Custom_3	
		Won	Lost	Won	Lost	Won	Lost	Won	Lost
1	Random	7	3	10	0	7	3	8	2
2	MM_Open	8	2	6	4	6	4	5	5
3	MM_Center	8	2	8	2	9	1	10	0
4	MM_Improved	8	2	7	3	7	3	5	5
5	AB_Open	4	6	6	4	5	5	4	6
6	AB_Center	8	2	6	4	5	5	7	3
7	AB_Improved	6	4	5	5	4	6	4	6

Win Rate:		70.0%		68.6%		61.4%		61.4%	

In the matching table above, AB_Improved is using (own_moves – opp_moves) to evaluate score of the current game state. AB_Custom is using (own_moves – 2*opp_moves) while AB_Custom_2 is using (my_moves), and AB_Cusom_3 is evaluating the square of the distance between the center of the bottom of the board and the position of the player. Below is a detailed view of the comparison between different evaluation functions applied to the player and the opponent. AB_Improved is the best evaluation function in this case. It has the highest win rate with using alpha-beta search and iterative deepening, it's more complex and it's evaluating both my_moves and the opp_moves instead of just my_moves, which goes one more level deeper of the game tree. Below graph is the comparison of evaluation functions between different test agents

competes against the cpu agents.

