

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

Win Rate:		72.9%		72.9%		67.1%		70.0%	

Your ID search forfeited 98.0 games while there were still legal moves available to play.

AB_Custom_3: first compute the moves' difference. When it is not zero, return it. Otherwise return the difference between player's distance to the center and the opponent's distance to the center. It performs well against all types of players except those using open moves.

AB_Custom_2: first compute the moves' difference. When it is not zero, return it. Otherwise return the difference between player's distance to the center and the opponent's distance to the center when this difference is not zero. Otherwise it returns the difference between number of blank spaces around player and the number of spaces around the opponent. It is only as good as those other AB players with simple evaluations. Not as good as AB_Custom_3.

AB_Custom: first compute the moves' difference. When it is not zero, return it. Otherwise return the difference between player's distance to the center and the opponent's distance to the center when this difference is not zero. Otherwise it returns the difference between number of blank spaces around player and the number of spaces around the opponent when this difference is not zero. Otherwise it return the distance between the two players. It outperforms AB_Custom_2 and AB_Custom_3

Recommendation: Based on the results, AB_Custom is recommended to use. It is built upon previous heuristic functions. First we want to use difference between moves, when this does not work, then we move to use difference tween central difference. When this won't work, we continue to use difference tween number of blank spaces nearby. Finally, it this difference is also zero, then we use distance between the two players. The philosophy behind this heuristic function is that we compare the relative advantages between the two players. These relative advantages include number of available moves, distance to the center, number of blank spaces nearby.