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### Playing Matches

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Match	Opponent	AB_Improved	AB_Custom	AB_Custom_2	AB_Custom_3
		Won   Lost	Won   Lost	Won   Lost	Won   Lost
1	Random	9   1	9   1	10   0	9   1
2	MM_Open	6   4	6   4	6   4	5   5
3	MM_Center	8   2	9   1	9   1	9   1
4	MM_Improved	5   5	6   4	5   5	5   5
5	AB_Open	5   5	4   6	3   7	5   5
6	AB_Center	3   7	5   5	5   5	7   3
7	AB_Improved	6   4	5   5	2   8	2   8
Win Rate:		60.0%	62.9%	57.1%	60.0%

The heuristics used are as follows:

I chose this *AB\_Custom* heuristics because it had consistent performance against *AB\_Improved*. The same cannot be said for *AB\_Custom\_2* and *AB\_Custom\_3* because while they perform Random moves by opponent, against *AB\_Improved*, they fail quite miserably.

By weighting opponent's move twice as much as it own and taking a difference, *AB\_Custom* amplifies the separation between max and min values that much more. The only opponent that it lost out to is *AB\_Open*.

One of the fascinating aspects for me was the impact of weighting factor used in *AB\_Custom* and *AB\_Custom\_3* on the outcome. Changing the opponent move weighting factor from 2 to 10 caused a noticeable degradation in performance.