

# Sequencium

## Log

Friday 28 Jan

Morning

Joseph and Sam looked through the pdf and files for the etude and discussed the name and strategy that we could go with. Currently our name is "tempPlayer" and our strategies that we have discussed so far are:

- Chase down and block the enemy's highest number then block the rest of the enemy's numbers until the enemy can't move. After the enemy can't move, try and move in the most efficient way in order to maximise score.
- Build up in the most efficient way from the start position until no more moves can be made.



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Also google doc for the Sequencium Log was created.

Afternoon

Joseph and Sam worked on the tempPlayer.java file and have created a working and compiling simple version of the first strategy that beats randomPlayer everytime we tested it.

The algorithm works by:

- Finds and appends all available moves for tempPlayer and enemyPlayer into 2 separate arrays
- Sorts each array by the highest values for each move.
- Runs a for loop for all available moves for tempPlayer, if any potential moves matches the potential move for enemy player's highest values then steal square so enemy can't make the move.
- If none match and we can make a move, make the highest move that we can(first in sorted list)
- Else no move

Monday morning

Updated algorithm such that it prioritises diagonal squares as this would theoretically maximise the available squares in proceeding moves, however, upon testing this appears to make the winning margins against random player significantly worse. So much so that it has started losing some matches so this change will be reversed.