Northcott’s Game

**Pieces and Board:** Northcott’s Game is played on an rectangular \( n \) rows by \( m \) columns board. The default game has 3 rows of 6 columns with the configuration of Figure 1. In a given row, L may not be placed to the right of R. Your implementation must handle an arbitrary number of rows and columns.

**To Move:** The players, Left and Right, alternate turns moving as many spaces horizontally forward (towards opponent) without jumping over the opponent. Pieces never leave the row (i.e., they never move vertically).

**To Win:** The player who has no moves remaining *loses.* (i.e., the last to move wins)

**Compulsory Rule Changes:**
- **Misére Rules:** The player who has no moves remaining *wins.* (i.e., the last to move loses)
- A player may move both forward (towards the opponent) and back (away from the opponent).

**Position Representation:**
- \((T \text{ row row row row} \ldots)\)
  - \(T\) stores whose turn it is (L or R). Each \text{row} is a word in the form \#\_L\_R\_#, where \#\_1 represents the number of spaces to the left of player L, \#\_2 the number of spaces between the two players, and \#, the number of spaces to the right of R.
  - E.g. The row “- L - R -” is the word “2L1R3”. The number of \text{row}'s in the position indicates the number of rows. In each \text{row}, the sum of \#\_1, \#\_2, \#\_3, plus 2 (for the pieces) indicates the number of columns.

**Example game:**

**Representations for initial position (see Figure 1):** (L 1L3R0 0L1R3 1L2R1)
**Representations for position mid-game (see board 1 above):** (R 4L0R0 0L1R3 1L2R1)

If you choose to implement this game, you cannot get above a "B" in CS3.