2012 SDSU Program Design Competition

Make Bridges

In the "Make Bridges" game there is a 17*17 chess board. Two players take turns to pick up a location to make a "bridge", by clicking on a blank space to add a bridge to the line or to block the competitor's progress. When one player creates a "bridged line" which goes from the one side of the board to the other before the competitor does this, that player wins. The game is a draw if neither of the players can create a "bridged line".
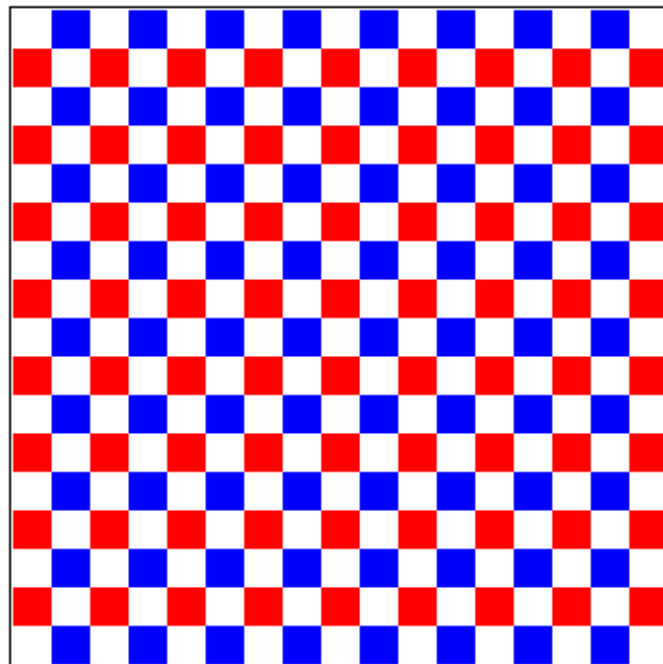
An example of the game-play is as follows:
Player1: red,
Player2: blue
In this example the red player fails to create a red line which goes from the one side of the board to the other before the blue player completes a blue line from the top to the bottom. So the blue player wins.
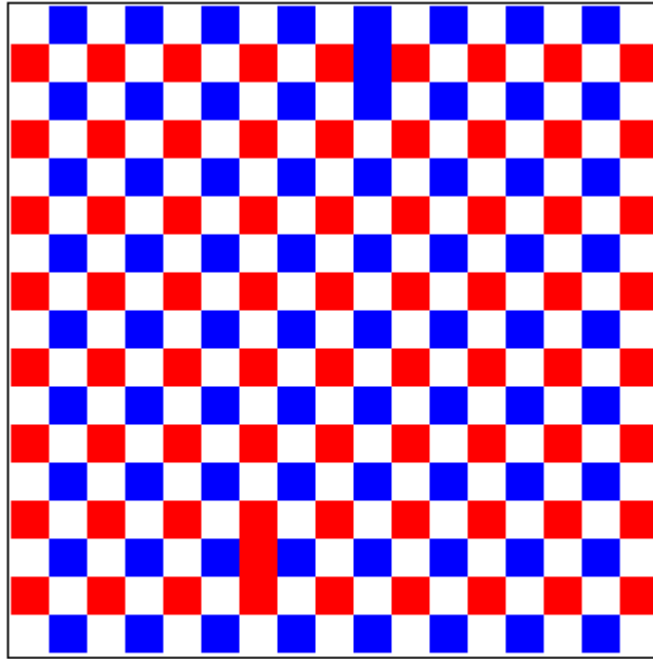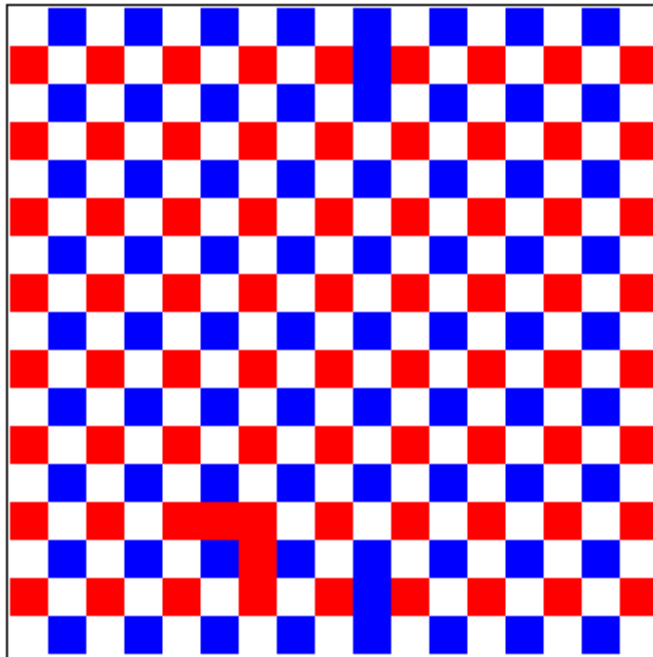
Initial state:

First round: red play chooses a location, and blue player chooses another.
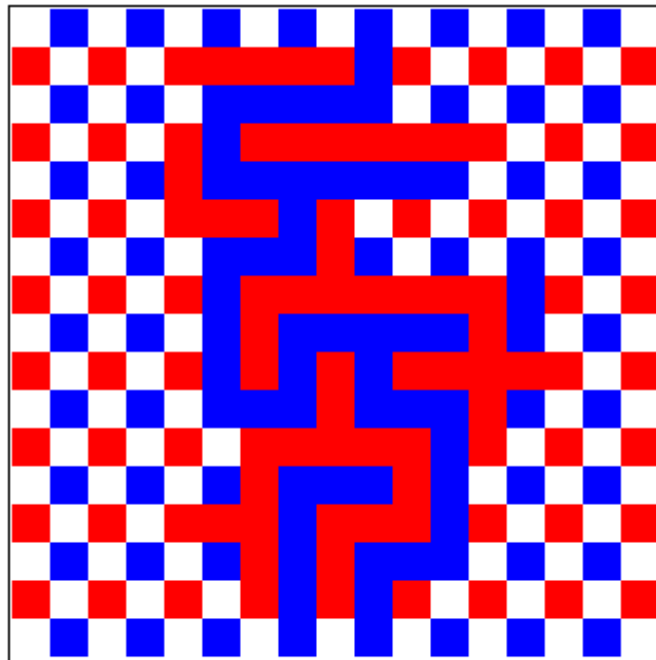
Red - It is your Move

New Game

Second round: the red player chooses a location to go horizontally, and the blue player blocks the red player on its right. In the meanwhile, the blue player also considers efficiently building the bridged line vertically.

Red - It is your Move

New Game

Many rounds later, the blue player finally creates a bridged line and wins.

Blue Wins

New Game

You can design this game for either human-to-human or human-to-computer, or both. Also you can develop this game using any software tools available to you. You may create a web based application, a C/C++ program, a Visual Basic/C++/C# program, Java, or some other programming environment. Your program MUST run on a Windows XP or VISTA or Windows7 computer using standard installation. Brower-based solutions MUST work on Internet Explorer, Firefox or Google Chrome Web browsers.

Your work will be judged on,

1. Correctness of the solution
2. Uniqueness of the design
3. Completeness of solution
4. User-interface design

Team members are encouraged to participate during the presentation. All parts of the presentation and source code should be burned to a clearly labeled CD and submitted to the program design competition committee on the day of the competition.

If you have any questions regarding the problem, please do not hesitate to ask us (wei.wang@sdstate.edu or sung.shin@sdstate.edu). Good luck and have fun!