

Battleships 2

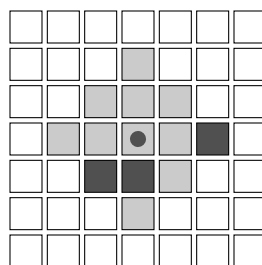
For the future release of our best selling game “Battleships”, the following changes have been made to game’s specification:

- First, a new concept has been introduced - the “captain’s quarters”. If the captain’s quarters are “hit”, the entire ship sinks, regardless of the status of its other elements. In addition, the captains quarters for battleships and destroyers (but not for minesweepers!) are armored, meaning that it takes two attacks on the same square in order to “hit” it (i.e. the result of the first attack always counts as “missed”).

The captain’s quarters are located as follows:



- Second, a new type of special “weapon” was introduced: the “sonar pulse”. The sonar pulse allows a player to reveal a portion of the map, as suggested in the figure below. The sonar pulse merely reveals the status of the cell as being free or occupied, but it does not reveal the type of ship or the location of the captain’s quarters.



A player can use a total of two (2) sonar pulses in a game, and only AFTER successfully sinking the first enemy ship.

Modify the design and implementation of the game, in order to accommodate these changes.