

Gunning

The gunning puzzle is the way to load the cannons of a ship for use in battle. Some pirates find this to be one of the most difficult duty puzzles. However, with a little practice and the strategies mentioned below, any pirate can gun with ease.

The gunning board itself is composed of four cannons (two on each side of the board) and several crates that block off parts of the board.



In addition, a number of gunning pieces come out of the barrel at the center and move around the board. The four types of pieces are the powder bag, the wadding, the cannonball, and the water.



The object of the puzzle is to manipulate the board so that the pieces move into the cannons in the correct order. The gunner does this by placing up to three arrows on the board. When a piece hits an arrow, the piece moves in that direction. If the gunner tries to place more than three arrows, the oldest arrow disappears.

A cannon is correctly loaded when a powder bag, wadding, and cannonball enter the cannon in that order. With each correct piece, a small fanfare will play letting you know that the piece was

correct. If an incorrect piece enters a cannon, the incorrect sound will play instead, and you'll have to wash out the cannon with water before loading it again.



If a cannon is fired in battle, a mess of ashes will be left in the cannon, and this will also have to be washed out with water.



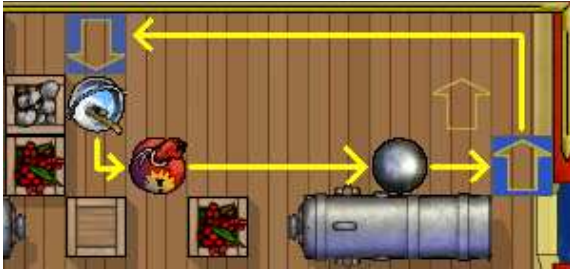
How Gunning Pieces Move

A gunning piece will always move in a straight line until it hits something (an arrow or an obstacle). If it hits an arrow, the piece will move in the direction of the arrow. If the piece hits an obstacle, then its motion depends on the other obstacles around it.

If there is only the one obstacle around, the piece moves such that it forms a clockwise circle. As an example, the pieces shown will move around in a clockwise circle forever.



If there are obstacles that form a corner, the piece moves in the direction of the other open end of the corner.



If there are obstacles that form a dead end, the piece reverses direction and goes the opposite direction.



If a piece hits another piece, both pieces will reverse direction.



Getting to know how pieces move around the board is crucial to understanding the next subject, so you may want to go practice on a navy ship for a little while to get used to it.

The Circle Method of Gunning

Since pieces naturally go in a clockwise direction, you can set up a clockwise circle around the board using a minimum of extra arrows. An example of this is shown below.



With the pieces going around in a circle, all you have to do is use an arrow in front of a cannon to select the pieces you need. In the example, turn the arrow toward the cannon to pick out a piece and turn the arrow down to let other pieces pass by.



After loading the cannon, you should put down your circle arrows again (since the oldest arrows disappear off the board), then load another cannon.

The Number of Arrows on a Gunning Board

The "goodness" of a board can be measured mainly by the number of arrows needed to set up the circle. The example above uses one arrow to set up the circle, so it is known as a one-arrow board. The board below is an example of a two-arrow board.



The lower the number of arrows, the less set-up time required between loading each cannon, and the more cannons that can be loaded at the same time. In short, smaller-numbered boards are better. Three-arrow boards and higher cannot use the circle method in its pure form because placing an arrow to load a cannon makes an arrow in the circle disappear.

Partial Circles and Dead-End Gunning

Even if a complete circle cannot be made past all four cannons, most boards allow for at least one circle around two cannons. An example of a partial circle around the bottom cannons is shown below.



Partial circles allow the gunner to load at least a few of the cannons using the circle method. The rest of the cannons can either be loaded on a different board or via another method called "dead-end gunning."

Dead-end gunning is a way to load a cannon that cannot be reached using any circle. An example of where this would need to be used is below. Notice how the boxes form a dead-end above the upper-left cannon that make it impossible to form a circle.



The key is to form a partial circle below this cannon such that there is an arrow directly below the cannon as shown. Then, place a third arrow in front of and pointing into the dead-end cannon.



When you want to direct a piece into the cannon, change the direction of the arrow below the cannon to up. Otherwise, leave the arrow as part of the partial circle.



The remaining cannon can be loaded by forming a partial circle past the two right cannons.



When using this tactic, keep in mind that pieces coming from the barrel could potentially find their way up into the dead-end cannon. Therefore, it is recommended to have the partial circle positioned as high as possible to allow new pieces to join the partial circle.