

# TORUS

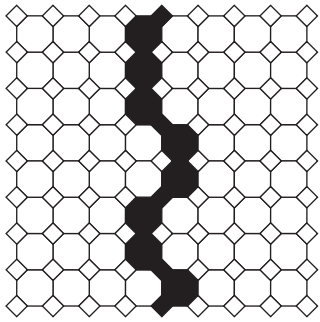


Fig. 1 - Ring

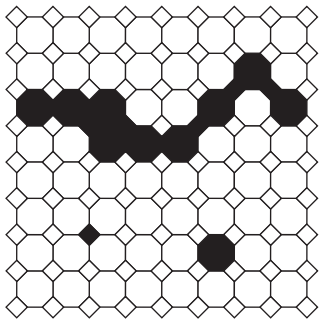


Fig. 2 - Bracelet

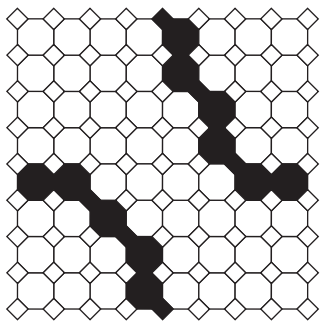


Fig. 3 - R-Helix

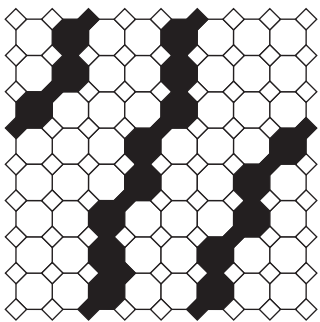


Fig. 4 - L-Helix

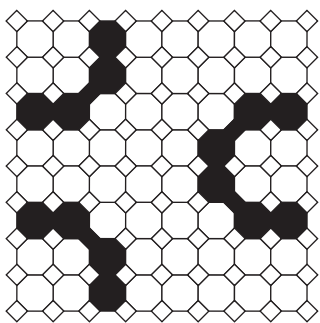


Fig. 5 - Black wins

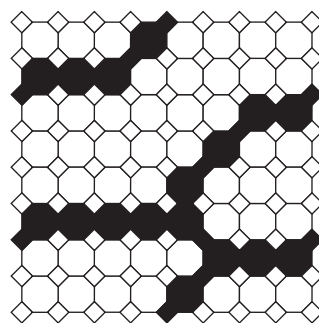


Fig. 6 - Black wins

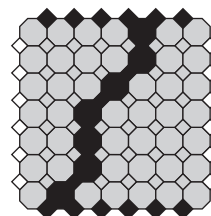


Fig. 7a - Hex



Fig. 7b - Y

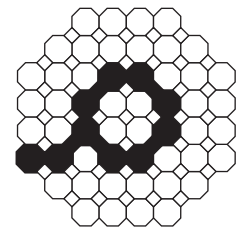


Fig. 7c - Lariat

**INTRODUCTION** Torus is a two player game played on the grid shown in the diagrams. The top edge of the grid connects to the bottom edge. The top row of diamonds and the bottom row of diamonds overlap and are actually only a single row of diamonds. Likewise for the left and right edges.

One player is designated Black and the other White. Draws cannot occur in Torus. Torus is a variant of a game designed by Bill Taylor variously called ZeN and NZ. Torus uses an octagon/square board pattern which enables players to choose any unoccupied cell on their turn without the need for special rules to determine which cells are connected. All adjacent cells are connected cells.

**PLAY** There are two types of cells on the board: octagons and squares. Players take turns claiming available cells and marking them with their own colors, one cell per turn. On each of your turns you can claim any unclaimed cell, regardless of its type. Players cannot pass on their turns. Black claims the first cell of the game.

## PATH TYPES

Figure 1) A “ring” surrounds a horizontal axis. It does not surround a vertical axis.

Figure 2) A “bracelet” surrounds a vertical axis only, and not a horizontal axis.

Figure 3) An “r-helix” (right handed helix) surrounds both a horizontal axis and a vertical axis and slopes downward from left to right.

Figure 4) An “l-helix” (left handed helix) surrounds both a horizontal axis and a vertical axis and slopes upward from left to right.

## OBJECT OF THE GAME

Black’s goal is to form either a ring or an r-helix.

White’s goal is to form either a bracelet or an l-helix.

Figure 5) Black has won by forming a ring. For clarity White’s cells are not shown.

Figure 6) Black has again won by forming a ring. At first glance it appears that Black has only formed an l-helix and a bracelet. But by doing so, Black has also formed a ring. Follow the black path from the top edge to the left edge. Continue from the right edge, go down to the intersection and out the right edge again, lower down. Continue from the left edge, go to the intersection and down to the bottom edge, completing Black’s ring. Note that some cells were traversed twice.

**OCTAGON/SQUARE TESSELLATION** The tessellation used here can also be used to play the three fundamental connection games, Hex, Y and Lariat. See

Figure 7.

**AUTHOR’S NOTE** Feel free to publish this rule sheet and to program the game of Torus for online or offline play. No licensing fee or royalties are expected.

However please don’t change the name or the rules, and please attribute the game to me, Mark Steere. My other games can be found at [marksteeregames.com](http://marksteeregames.com).