

Drone's One Hand Counting Method

for Knowing Which Tiles are Available to Fill Forced Spaces in Tantrix

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Knowing whether tiles remain in the bag that fit a particular forced space is an important step toward winning more often in Tantrix. In this article I present a simple method for knowing not only how many tiles remain, but which ones they are. I am indebted to Dave Dyer, whose "phone number" system, described on his Tantrix Tips page (<http://www.andromeda.com/people/ddyer/tantrix/TantrixTips.html>) was the inspiration for my method. His discussion is invaluable, but I find the need to remember sequences of numbers and to know whether a line curves left or right (when it may be upside down in the tantrix) cumbersome. I believe the One Hand Method makes keeping track of the count and visualizing the tiles much easier.



Photo 1. The five tiles that fit a Red-Yellow-Blue (A-B-C) forced space.

Forced spaces are three-sided spaces identified by the colors of the three lines that end in them, named in clockwise order around the space. There are four kinds of forced spaces: one defined by three colors (color A, color B, and color C: "A-B-C"), and three defined by two colors (A-A-B, A-B-B, and A-B-A). Only five (5) tiles fit any A-B-C space, six (6) tiles fit each A-A-B space, six (6) fit each A-B-B space, and six (6) fit each A-B-A space. By scanning along the lines of one of the colors and making a simple count, players can easily discover how many tiles, if any, remain in the bag that fit a particular forced space. Knowing what those tiles look like, however, is often even more critical than the count. The One Hand Method puts this information "at your fingertips."

Tiles come in four patterns: Ronds, Brids, Chins, and Sints. Ronds are tiles containing three corners; Brids have two corners on either side of a straight; Chins have two curves crossing a straight; Sints have one corner and two crossing curves. The five tiles that fit any A-B-C space are one Brid, two Chins, and two Sints. The six tiles that fit any A-A-B space or any A-B-B space are two Ronds, two Brids, and two Sints. The six tiles that fit any A-B-A space are two Chins and four Sints. For the One Hand Method, I assign each tile to a finger in the case of the A-B-C space, and I assign five tiles to fingers and one to a hand position for the A-A-B, A-B-B, and A-B-A spaces.

Easy as A-B-C.

Let's consider an A-B-C forced space: Red-Yellow-Blue. Only five tiles fit this space: one Brid, two Chins, and two Sints. These tiles possess certain easily recognizable features: on one Chin, the A color (Red) is a straight; on the Brid, the B color (Yellow) is a straight, and on the other Chin the C color (Blue) is a straight. On one Sint, the corner is Red, the A color; on the other Sint the corner is Blue, the C color.

Let's arrange these tiles symmetrically. Place the Chin with the Red straight, the Brid with the Yellow straight, and the Chin with the Blue straight in A-B-C order. Then place the Sint with the Red corner on the A side of this arrangement, and the Sint with the Blue corner on the C side. Let your index, middle, and ring fingers represent the three tiles central tiles, and the thumb and pinkie fingers represent the Sint tiles on either side (see *Photo 1*). Now you are ready to discover which Red-Yellow-Blue tiles have been played.

Counting.

Begin with your left fingers curled into a fist. Hold your fist palm up, perhaps resting on your left thigh under the table (see *Photo 2*). Looking at the "tantrix," run your eyes along all the lines and around any loops of the first color (Red), noticing each instance of the Red-Yellow-Blue sequence.



Photo 2. Preparing to count an A-B-C forced space: left fist surrounded by the tiles you are looking for.

This takes practice: you may miss a tile or count tiles twice for awhile until you get better at it. When you recognize one of the five tiles, extend the finger that corresponds to that tile (see *Table 1*, below).

| <u>Tile Type</u> | <u>Color (A,B, or C) and Segment</u> | <u>Fingers on Left Hand</u> |
|------------------|--------------------------------------|-----------------------------|
| SINT | A = part of a corner | THUMB |
| CHIN | A = straight | INDEX |
| BRID | B = straight | MIDDLE |
| CHIN | C = straight | RING |
| SINT | C = part of a corner | PINKIE |

Table 1. The five tiles which fit an A-B-C forced space and the fingers which represent them.

If, for example, you find the four tiles pictured in *Photo 3*, you know from your ring finger's curled position that the Chin tile with a Blue straight is still in the bag.



Photo 3. Which tile is still in the bag?

If you find the three tiles pictured in *Photo 4*, you know that the Sint tile with the Red corner and the Brid tile with the Yellow straight are still in the bag.



Photo 4. One Sint and the Brid are still in the bag.

Two-Color Forced Spaces.

Now let's look at the three kinds of two-color forced spaces: A-A-B, A-B-B, and A-B-A. While A-B-C spaces are filled by five tiles from a single "suit" (there are four suits of 14 three-color tiles in Tantrix), two-color forced spaces are filled by six tiles drawn from *two suits*. So though we are concerned with only two colors (say, Red and Yellow), each of the two other colors (Green and Blue) appear on three of the six tiles that fit Red/Yellow forced spaces.

To match the tiles to our fingers in a memorable sequence, I use the order of colors in the visible light spectrum, which also happens to be the order of colors in the *Tantrix.com* game lobby: Red, Yellow, Green, Blue. So for example, when searching for Red/Yellow, I always place tiles whose third color is Green ahead or to the left of tiles whose third color is Blue; if the two colors of interest are Yellow and Green, I put tiles whose third color is Red ahead or to the left of those whose third color is Blue.

The other difficulty with two-color forced spaces is that six tiles fit these spaces, and most of us have only five fingers on one hand. True, we might use one finger on the right hand or divide the six in some other way between both hands; but I prefer to have one hand free to tinker with the tiles. My answer to this conundrum is to use the digits of my left hand for five of the tiles, and to *shift the position of my left hand for the sixth tile*. It doesn't really matter what the two positions are, as long as they are easy and memorable. I tried turning my left hand from palm up to palm down, but this reverses the apparent order of the fingers and strains the brain. I settled on starting with my left fist at my left hip joint, and moving the hand down the leg to the knee for one of the tiles.

A-A-B and A-B-B.

The six tiles that fit any A-A-B space or any A-B-B space are two Ronds, two Brids, and two Sints. I assign them to the hand as in *Table 2*, below.

| Tile Type | Third Color | Hand Signal |
|------------------|--------------------|----------------------------|
| ROND | C | MOVE HAND FROM HIP TO KNEE |
| ROND | D | THUMB |
| BRID | C | INDEX |
| BRID | D | MIDDLE |
| SINT | C | RING |
| SINT | D | PINKIE |

Table 2. The six tiles which fit A-A-B or A-B-B forced spaces and the hand signals which represent them.

The photos below (*Photo 5* and *Photo 6*) match the tiles that fit A-A-B and A-B-B forced spaces to the fingers of the left hand. Slide the hand from the hip to the knee if the Red-Yellow-Green Rond has been played; extend the thumb if the Red-Yellow-Blue Rond has been played.



Photo 5. The six tiles that fit a Red-Red-Yellow (A-A-B) forced space.



Photo 6. The six tiles that fit a Red-Yellow-Yellow (A-B-B) forced space.

A-B-A.

The six tiles that fit any A-B-A space are two Chins and four Sints. I assign them to the hand as in *Table 3*, below.

| Tile Type | Third Color | Hand Signal |
|------------------|---------------------------|----------------------------|
| CHIN | C | MOVE HAND FROM HIP TO KNEE |
| CHIN | D | THUMB |
| SINT | C (corner precedes A-B-A) | INDEX |
| SINT | C (corner follows A-B-A) | MIDDLE |
| SINT | D (corner precedes A-B-A) | RING |
| SINT | D (corner follows A-B-A) | PINKIE |

Table 3. The six tiles which fit the A-B-A forced space and the hand signals which represent them.

The photo below (*Photo 7*) matches the tiles that fit a Red-Yellow-Red forced space to the fingers of the left hand. Slide the hand from the hip to the knee if the Chin from the Red-Yellow-Green suit has been played; extend the thumb if the Chin from the Red-Yellow-Blue suit has been played.



Photo 7. The six tiles that fit a Red-Yellow-Red (A-B-A) forced space.