

# Spectra



*Copyright Eng's I.Q. Company Ltd. 1987.  
(metal, 15 inches)*

Each of 12 discs is colored with the same eight colors, but in different orders. The two discs on the left and right sides are attached to an arm (that rotates). In the center is a long arm, on its ends two shorter arms, and on their ends arms with pairs of discs. The discs themselves can all rotate. The task is to rotate the arms to place the discs in a straight line and then rotate the discs in such a way that colors match between adjacent discs and also between the left and right ends. The analysis on *Jaap's Page* shows that there are 12 ways to do this, but only one of them uses all eight colors:



Here is a side view of the arms when the discs are lined up in a straight line (as with a solved position):



## Further reading:

*Jaap's Page*, from: <http://www.geocities.com/jaapsch/puzzles/spectra.htm>

*Lamphere's Article*, from: <http://portal.acm.org/portal.cfm>

## Directions from the Back of the Spectra Box

**S**

**P**

**E**

**C**

*The game that reflects*

### DESCRIPTION

At last there's a puzzle that's as stimulating and challenging as it is relaxing and fun!

For individual players age 8 to adult, Spectra poses a colorful problem.

Simply twist and rotate each of the puzzle's 12 mounted discs so that adjacent color wedges match and line up. Since color configurations vary from disc to disc, there's a full spectrum of solutions—making for hours of rewarding and creative play.

### SPECTRA

Twelve discs, each with six colored segments, make up the puzzle. Since there are eight different colors in the color pool, no two discs have the same color configuration.



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**T**

**R**

**A**<sup>TM</sup>

*your true colors.*

### OBJECT

To align the discs in such a way that the adjacent color sectors of adjoining discs match, and the adjacent color sectors of the first and last discs match with all eight colors

### TO PLAY

The rotating arms and the discs themselves each turn a full 360°, allowing the player to turn and swivel them into proper alignment.

### CONTENTS

Single puzzle piece of 12 colored discs mounted on rotating arms.

