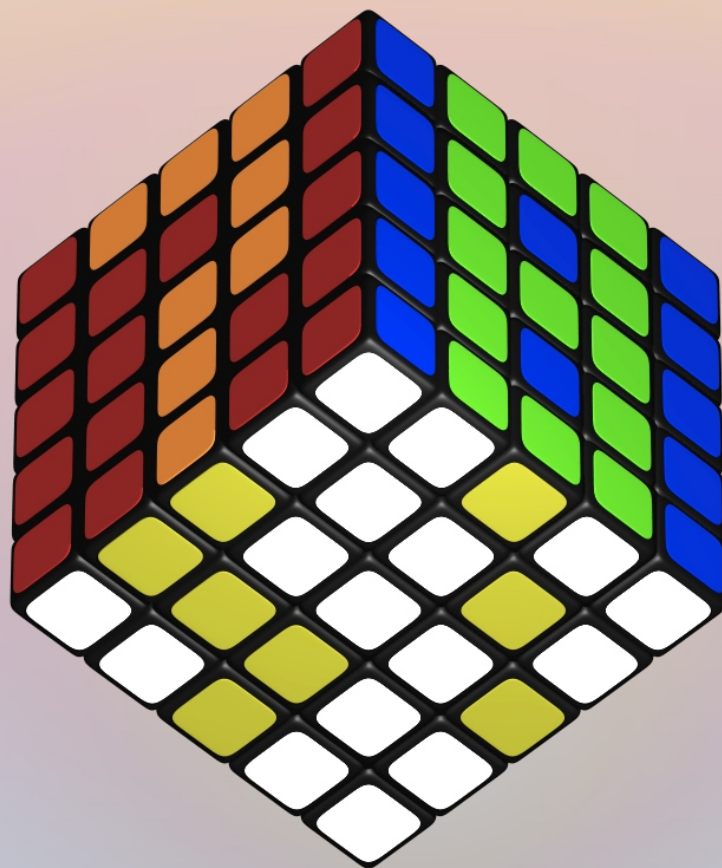


Math 78SI
August 29, 2009
Class 2



Who is Erno Rubik?

According to <http://www.rubikkoeka.hu/angol/pages/tortenelemeng.htm> :

“Ernő Rubik was born on 13th July 1944 in Budapest. His father was a flight engineer, who established a firm that makes gliders.

He graduated from the Faculty of Architecture at Budapest University of Technology in 1967. He finished the Budapest College of Applied Arts in 1971, where he learnt statuary and architecture.

Between 1968 and 1975 he worked as a builder-designer.

Between 1970 and 1988 he was an instructor, then a lecturer and then a docent on the Budapest College of Applied Arts.

He worked as the editor in chief of the journal called "...And Game!" in 1982-83.

Since 1983 he has been the leader of the Rubik Studio.

Between 1982 and 1988 he established three foundations.

He has been a titular professor since 1987, in 1990 he became the president of the Hungarian Engineering Academy, and since 1996 he has been its honorary president.

He got the National Award in 1983, and the Gábor Dénes Prize in 1995.

He also invented some logical games: Rubik's cube (1975), Rubik's Snake (1977), Rubik's Magic (1985).

Nowadays he deals with architecture and making of computer games.”

A Rubik's Cube Chronology

Researched and maintained by Mark Longridge (c) 1996-2003

Pre-Rubik

Feb 2, 1960 William Gustafson files patent for Manipulatable Toy

Mar 12, 1963 Gustafson receives US patent 3,081,089

1970 Uwe Meffert invents a model for research of energy flow
in different shape solids (pyraminx)

Apr 9, 1970 Frank Fox applies for UK patent for spherical 3x3x3

Mar 4, 1970 Larry Nichols files patent for Twizzle (2x2x2 cube)

Apr 11, 1972 Nichols receives US patent 3,655,201

Jan 16, 1974 Frank Fox receives UK patent 1,344,259



CHRISTIAN VIOUJARD—GAMMA LIAISON

The Cube's wooden prototype in the hands of its creator, who, for more than a month, didn't know if it could be mastered

A Rubik's Cube Chronology

Researched and maintained by Mark Longridge (c) 1996-2003

Post-Rubik

Spring 1974 Erno Rubik gets idea to make the cube

Summer 1974 Erno Rubik solves the cube (arguably the first solver)

Jan 30, 1975 Rubik applies for patent on cube

Oct 12, 1976 Terutoshi Ishige Japanese Patent 55-8192 for 3x3x3

1977 Rubik's Cube starts distribution in Hungary

Mar 28, 1977 Erno Rubik receives Hungarian Patent HU00170062

...

July 1980 MIT cube lovers group starts up



- Nov 13, 1981 1st American Rubik's Cube Championships
...
Dec 12, 1981 United Kingdom Rubik's Cube Championships
Jan 29, 1982 Peter Sebesteny files for US Patent for 4x4x4
..
Mar 20, 1982 1st (Only) Canadian Rubik's Cube Championships
...
Apr 24, 1982 1st and only Dutch National Championships in Utrecht
Netherlands
...
June 5, 1982 1st Rubik's Cube World Championships
July 1982 Hofstadter's article on cube variants (S.A.)
...
Nov 5, 1982 2nd American Rubik's Cube Championships

[next] [prev] [up] Date: Mon, 12 Jan 81 09:13:00 -0700 (PST)
[next] [prev] [up] From: Stan Isaacs <Isaacs@SRI-KL >
~~~ ~~~ [up] Subject: Stanford Rubik's Cube Club

There is a newly formed Rubik's Cube Club, meeting at Stanford, every Thursday, 7 p.m., Crother Memorial Hall, Conference Room. For information, call Kersten (415)321-7725 or Paul 446-0729. Open to all - beginners and experts. First meeting was 1/6/81. Second will be 1/20.

-----

[next] [prev] [up] [top] [help]

Cubelovers Mailing List:

<http://www.math.rwth-aachen.de/~Martin.Schoenert/Cube-Lovers/>

# Rubik's Cube Club: to solve or solve not

By Kersten Meler

Eleven Stanford students have been seized by "Cube fever." No, it's not that nasty flu or a new Travolta-like dance craze; rather, it's a condition of people who like to solve puzzles!

The puzzle they work with, called Rubik's Cube, has sold more than four million copies throughout the world. The cube, which consists of 26 subcubes, has three layers in every dimension which can be turned.

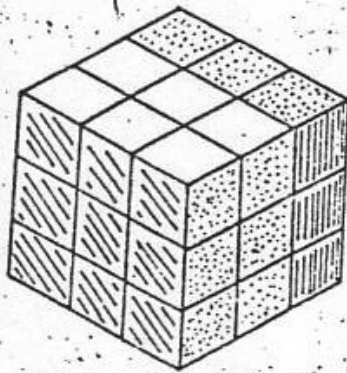
When the cube is purchased, each of the six surfaces shows a different color, then the cube is mixed up and the puzzler tries to rearrange it.

"WARNING:" says an advertisement for the cube, "don't touch it. You can't get rid of it!" Judging by the enthusiasm the two founders of the "Stanford Rubik's Cube Club," the warning appears to have validity.

The club's basic objective is to help puzzlers restore the cube. More advanced objectives are to find faster and easier solution systems and to design and build similar puzzles.

In dealing with the cube, various sciences may be used. From mathematics one can use group theory, graph theory and combinatorics. When programming a solution system on the computer one has to consider 43252,00327,44898,56000 different cube patterns. Even to store only a fraction of them efficiently one must apply computer science techniques.

If a new system to restore the cube is found, making sure that a human brain can memorize it would be a major concern. For this to occur, information theory and psychology are necessary. In order to design and build new puzzles' engineering skills are needed.



Rubik's Cube

Play with the cube allows the creation of aesthetically pleasing patterns. A simple one shows a dot in the center of each face. Imagination sets almost no limits on finding new patterns.

Several articles and booklets have been written about the cube. Puzzlers all over the world exchange solutions. In Hungary fans compete in "speed puzzling." In Germany a Rubik's cube club plans a championship this summer.

The Stanford Rubik's Cube Club meets every Thursday.

Article  
(Stanford Daily,  
January 20, 1981)



# World Championships 1982



# World Championships 1982

- 19 countries represented (each had a national champion)
- Results
- Famous Names: Minh Thai, Guus Razoux Schultz, Lars Petrus, Jessica Fridrich, Mirek Goljan.
- [Video]

# Fingertricks

- Grip
- $U / U'$
- $RUR'$
- $RUR'U'$