RUBIK'S REVENGE APPLICATION TOOL

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ABSTRACT: The Rubik's revenge is really captivating and fascinating puzzle. It is a three dimensional game. In the literary survey, there are several applications available in Rubik's revenge. Some of them are in two dimensional games, some of them has not whole cube rotation using mouse. In this work, we introduces a new user friendly application tool which has three dimensional Rubik's Revenge. To play the game using this application tool user can rotate whole cube using mouse and rotate each layer using buttons. If the user is not familiar with solving Rubik's revenge, they can use the help menu. It has the algorithm for solve the Rubik's Revenge. Learning to solve the Rubik's revenge helps teach many life lessons such as following direction, perseverance, memorization and focus.

Keywords: Rubik's Revenge, Game, Tool

1. INTRODUCTION

The Rubik's Revenge also known as Master Cube (4x4x4 Rubik's Cube) is a puzzle in three dimension. There are several applications available on Rubik's revenge. This paper presents a different user friendly tool to play the Rubik's revenge in desktop application.

There are few differences between the 3x3x3 cube and 4x4x4 cube. Rubik's cube (3x3x3) has 3 layers and each face has a single center piece. Rubik's revenge has four layers and each face has four center pieces.

In Rubik's Revenge, each of the six faces is covered by sixteen stickers, among six solid colors. A pivot mechanism enables each face to turn independently, thus mixing up the colors. The main target of the puzzle is to show that each face of the cube is in a solid color. There is no single center piece, but four center pieces per color; therefore they are not fixed in their positions. They can be rotated into any center positions. That means we cannot determine the cube color-scheme by looking at the center pieces. So, four center pieces solved together we call a center block. The color of a cube face is therefore decided by its center block. There are 24 edge pieces, each with two colors and 8 corner pieces of which each with three colors in different combinations.

Using this mechanism desktop application tool was created. Using this tool user can shuffle the cube, reset the cube and play the game using shuffle button, reset button and start game button respectively. The whole cube can be rotate using mouse and rotate the layers using 24 turn buttons.