

Daily Log

Tuesday September 3

Thought out the structure of the program, on how the colors of the cube at each move will be stored. Organized the data structure in python with indexing each square consistently.

Thursday September 5

Reviewed how OpenCV works. Wrote the R and R' methods correctly, checking that they work with multiple starting cube states.

Timeline

Date	Goal	Met
Today	Organize the cube data structure and program all the possible moves	No, I organized the data structure and only programmed R and R' methods. Didn't expect the indexing to be as complicated as it was since things aren't symmetric when unfolding 3-D into 2-D
Today plus 1 week	Finish programming all the moves and figure out a way of displaying things live in python	
Today plus 2 weeks	Make the T-display of the cube with colors and change live as you enter moves	

Reflection

Organizing and indexing the squares on the cube turned out to be much harder than I thought it to be. However, the rest of the programming for the moves shouldn't take as long as the first 2 did. Picture of consistent indexing is on back.

```

    0 1 2
    7 w 3
    6 5 4
0 1 2 0 1 2 0 1 2 0 1 2      w
7 o 3 7 g 3 7 r 3 7 b 3      =  o g r b
6 5 4 6 5 4 6 5 4 6 5 4      y
    0 1 2
    7 y 3
    6 5 4

g = 0
r = 1
b = 2
o = 3
w = 4
y = 5

cubeState is 6x8 array full of numbers 0-5 each representing the color of that

```

Figure 1: An image of indexing on the cube