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EECS 391

P1 EC Writeup

For the extra credit, I represented the cube as a string of 24 characters, and then converted between an array and a string when needed. For the A\* Search, I used the same code as in the first part of the project, using inheritance to implement the same code, and overriding the parent methods that needed to be updated. To calculate the Manhattan distance, or H1, I went through, and iterated through a loop until I found the piece in the goal state, and then went to the next one. The array representation of the cube has 8 pieces with their 3 colors in the according orientation. For H2, I used a helper array to calculate the heuristic distance of the movement of the pieces when sorted.

This code should work, but no extensive testing was saved or submitted. Any code that should be tested can be tested using the original test file, as long as a test cube is created in the code beforehand, as is done in the top of the main method.