Think-Thank-Thunked
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APCS02 pd08
HW60 -- Are We There Yet?
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RubiksCube

- color[][] front //faces of the cube
- color[][] back
- color[][] right
- color[][] left
- color[][] up
- color[][] down

protected int size //side length of face
protected Stack<int> solStack //stack of moves to get to solution

+ void shuffle()
+ boolean isSolved()
+ String toString()
+ void reset() //cube becomes solved
+ void getHint() //pops the moves stack and displays it for user
+ solve(int x)

protected abs void turn(color[][] a, int turn) //rotates face in direction of turn
+ void turnFC() //wrapper class for turning (front face clockwise)
+ void turnFCC()
+ void turnBC()
+ void turnBCC()
+ void turnRC()
+ void turnRCC()
+ void turnLC()
+ void turnLCC()
+ void turnUC()
+ void turnUCC()
+ void turnDC()
+ void turnDCC()

+ abs rotateUp() //reassigns instance vars to simulate physically turning

+ abs rotateDown()
+ abs rotateLeft()
+ abs rotateRight()

twoCube

+ void Two()
+ void turn(color[][] a, int turn)
+ void rotateUp()
+ void rotateDown()
+ void rotateLeft()
+ void rotateRight()
- void rotateHC(color[][] a) //rotate helper function - rotates face clockwise
- void rotateHCC(color[][] a) //rotate helper function - rotates face counter-clockwise

Three

+ void Three()
+ void turn(color[][] a, int turn)
+ void rotateUp()
+ void rotateDown()
+ void rotateLeft()
+ void rotateRight()
- void rotateHC(color[][] a)
- void rotateHCC(color[][] a)

Run_Rubiks

- boolean onHelp //are we on the help page?
- boolean solve //global for solving instantly vs animated solving
- int ticks //used to determine frames since last solve update
- String s //hint string
- boolean hint //toggles when user wants hint displayed

+ void setup()
+ void draw()
+ void mouseClicked()

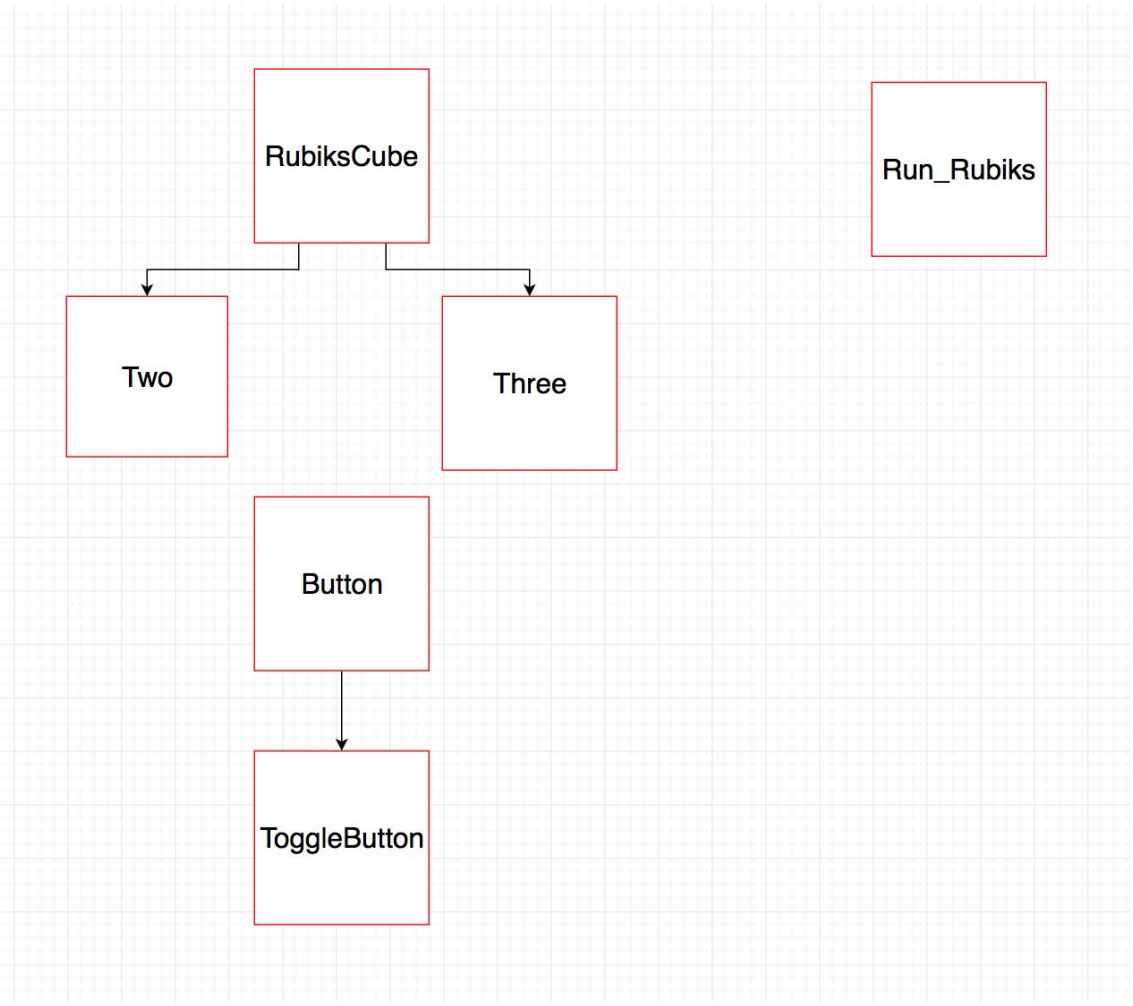
Button

- int x //x-coordinate of button
- int y //y-coordinate of button
- String message //message to be put in button
- float xsize //length of button
- float ysize //height of button
- boolean isPressed

+ Button(int xCoor, int yCoor, float xSize, float ySize, String writing) //constructor
+ void makeButton() //display button with pre-made colors
+ void mouseClicked()

ToggleButton

+ ToggleButton(int xCoor, int yCoor, float xSize, float ySize, String writing) //constructor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