

# Dustin Muse

Completed



Originals



```
def collage():
    setMediaPath("C:\Users\DJmus\OneDrive\CS 120\Project 2")
    og_pic = makePicture(getMediaPath("itachi picture.jpg"))
    eyes_pic = makePicture(getMediaPath("itachi's true eyes.png"))
    signature = makePicture(getMediaPath("Dustin_Muse_cocosign.jpg"))
    #288
    width = getWidth(og_pic)
    #512
    height = getHeight(og_pic)
    canvas = makeEmptyPicture(736, 1000)
    startY = ((1000 - height) / 2)
    startX = ((736 - width) / 2)
    endY = width - ((1000 - height) / 2)
    endX = height - ((736 - width) / 2)

    #spins the eyes pic in circle
    spin(eyes_pic, canvas)

    #copy the original image to the top left corner of the canvas
    copy(og_pic, 27, 27, 250, 270, canvas, 0, 0)
    #copy the original image to the bottom right corner of the canvas
    copy(og_pic, 27, 27, 250, 270, canvas, 510, 750)
    #copy the original image to the top right corner of the canvas
    copy(og_pic, 27, 27, 250, 270, canvas, 510, 0)
    #copy the original image to the bottom left corner of the canvas
    copy(og_pic, 27, 27, 250, 270, canvas, 0, 750)

    negative(canvas)

    #copies the original picture into the center of the canvas
    copyInto(og_pic, canvas, startX, startY)

    #adding signature at bottom middle
    addSignature(canvas, signature, 220, 550, black)

    explore(canvas)
```

```

def copy(source, srcXB, srcYB, srcXE, srcYE, target, targXB, targYB):
    targetX = targXB
    for sourceX in range(srcXB, srcXE):
        targetY = targYB
        for sourceY in range(srcYB, srcYE):
            srcPx = getPixel(source, sourceX, sourceY)
            targPx = getPixel(target, targetX, targetY)
            setColor(targPx, getColor(srcPx))
            targetY = targetY + 1
        targetX = targetX + 1

def spin(pic, ontoCanvas):
    ted = Turtle(ontoCanvas)
    for i in range(0, 360):
        ted.drop(pic)
        ted.forward(10)
        ted.turn(20)
    return ontoCanvas

def addSignature(target, signature, toX, toY, color):
    #Parameter: target is a picture to which signature will be added
    #Parameter: signature is signature on a white background
    #Parameter: toX and toY are the coordinates of the upper left corner in
    #             the target where the signature should be added
    #Parameter: color is the color to use for the transferred signature

    toYStart = toY
    for x in range(0, getWidth(signature)):
        toY = toYStart
        for y in range(0, getHeight(signature)):
            p = getPixel(signature, x, y)
            if (getRed(p) < 225 and getGreen(p) < 225 and getBlue(p) < 225):
                setColor(getPixel(target, toX, toY), color)
            toY = toY + 1
        toX = toX + 1
    return target

def negative(pic):
    for px in getPixels(pic):
        red = getRed(px)
        green = getGreen(px)
        blue = getBlue(px)
        negColor = makeColor(255 - red, 255 - green, 255 - blue)
        setColor(px, negColor)

```