```
import numpy as np
import math
from matplotlib import pyplot as plt
import cv2
m=90
size = 800,800, 3
y1 = np.zeros(size, dtype=np.uint8) # ?
img = cv2.imread("C:/Users/Rajnish Kumar
Ranjan/Pictures/recent.jpg",cv2.IMREAD_GRAYSCALE)
#y = cv2.cvtColor(m, cv2.COLOR_GRAY2BGR)
#y = np.zeros((rows,cols,3),np.uint8)  # for output
qm=math.log2(m)*2*math.pi
q=qm
b = math.log(2)/(2*math.pi)
a = m/(math.exp(2* b*math.pi)*math.log2(m))
k = 398
for rm in range(k,int(k/2),-1):
    q=qm
    for r in range(int(12*rm),5,-1):
        dq = (math.log(r/(r+1)))/b
        q = q+dq
        r1 = r/12
        x = 400 + r1*math.cos(q)
        y = 400 + r1*math.sin(q)
       # if y1.item(int(x),int(y),1) == 255 :
                 #  break
        y1.itemset((int(x),int(y),1) ,255)

#cv2.imshow("image" , y1)
#cv2.waitKey(0)
#cv2.destroyAllWindoows()
plt.imshow(y1 , cmap = 'hsv', interpolation = 'bicubic')
plt.show()
```