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from turtle import *

def HSB2RGB(hues):
    hues = hues * 3.59 #100转成359范围
    rgb=[0.0,0.0,0.0]
    i = int(hues/60)%6
    f = hues/60 -i
    if i == 0:
        rgb[0] = 1; rgb[1] = f; rgb[2] = 0
    elif i == 1:
        rgb[0] = 1-f; rgb[1] = 1; rgb[2] = 0
    elif i == 2:
        rgb[0] = 0; rgb[1] = 1; rgb[2] = f
    elif i == 3:
        rgb[0] = 0; rgb[1] = 1-f; rgb[2] = 1
    elif i == 4:
        rgb[0] = f; rgb[1] = 0; rgb[2] = 1
    elif i == 5:
        rgb[0] = 1; rgb[1] = 0; rgb[2] = 1-f
    return rgb

def rainbow():
    hues = 0.0
    color(1,0,0)
    #绘制彩虹
    hideturtle()
    speed(100)
    pensize(3)
    penup()
    goto(-400,-300)
    pendown()
    right(110)
    for i in range (100):
        circle(1000)
        right(0.13)
        hues = hues + 1
        rgb = HSB2RGB(hues)
        color(rgb[0],rgb[1],rgb[2])
    penup()

def main():
    setup(800, 600, 0, 0)
    bgcolor((0.8, 0.8, 1.0))
    tracer(False)
    rainbow()
    #输出文字
    tracer(False)
    goto(100,-100)
    pendown()
    color("red")
    write("Rainbow",align="center",
        font=("Script MT Bold", 80, "bold"))
    tracer(True)

    mainloop()

if __name__ == "__main__":
    main()

```