

用 Python 画一只福鼠

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今年这个鼠年，尽管只是刚过了一个开头，但现实仿佛把我们很多年才需要经历的不好的事情，都在一瞬间抛向了我們，这个鼠年好像缺了点福气，本节我们使用 Python 画一只福鼠，为大家增添点福气，我们需要用到的是 turtle 库。

头部

首先，我们画福鼠的头部，头部主要包括：眼睛、耳朵、鼻子、胡子、牙齿等，代码实现如下所示：

```
1 import turtle
2
3 def head():
4     turtle.color('black')
5     # 脸轮廓
6     turtle.fillcolor('#FFE4B5')
7     turtle.begin_fill()
8     # 落笔
9     turtle.pd()
10    # 画一个半径为指定值的圆
11    turtle.circle(50)
12    # 提笔
13    turtle.pu()
14    turtle.end_fill()
15    # 移动到指定坐标位置，参数 1 代表 x 轴位置，参数 2 代表 y 轴位置
16    turtle.goto(50, 60)
17    turtle.pd()
18    turtle.circle(25, 255)
19    turtle.pu()
20    turtle.goto(60, 80)
21    turtle.pd()
22    turtle.circle(-10, -200)
23    turtle.pu()
24    turtle.goto(-50, 60)
25    turtle.pd()
26    # 按逆时针改变行进方向
27    turtle.seth(180)
28    turtle.circle(-25, 255)
29    turtle.pu()
30    turtle.goto(-60, 80)
31    turtle.pd()
32    turtle.circle(10, -200)
33    turtle.pu()
34    # 眼睛
35    turtle.goto(10, 65)
36    turtle.seth(45)
```

```
37     turtle.pd()
38     turtle.circle(-8, 360)
39     turtle.pu()
40     turtle.goto(13, 62)
41     turtle.fillcolor('black')
42     turtle.begin_fill()
43     turtle.pd()
44     turtle.circle(-4, -360)
45     turtle.pu()
46     turtle.end_fill()
47     turtle.goto(-10, 65)
48     turtle.seth(135)
49     turtle.pd()
50     turtle.circle(8, 360)
51     turtle.pu()
52     turtle.goto(-13, 62)
53     turtle.fillcolor('black')
54     turtle.begin_fill()
55     turtle.pd()
56     turtle.circle(4, 360)
57     turtle.pu()
58     turtle.end_fill()
59     # 鼻子
60     turtle.goto(-6, 45)
61     turtle.seth(70)
62     turtle.fillcolor('red')
63     turtle.begin_fill()
64     turtle.pd()
65     turtle.circle(-6, 150)
66     turtle.pu()
67     turtle.end_fill()
68     turtle.goto(-6, 45)
69     turtle.seth(-70)
70     turtle.fillcolor('red')
71     turtle.begin_fill()
72     turtle.pd()
73     turtle.circle(6, 150)
74     turtle.pu()
75     turtle.end_fill()
76     # 嘴
77     turtle.goto(0, 40)
78     turtle.seth(270)
79     turtle.pd()
80     turtle.forward(7)
81     turtle.pu()
82     turtle.seth(200)
83     turtle.pd()
84     turtle.circle(-15, 60)
85     turtle.pu()
86     turtle.goto(0, 33)
```

```
87     turtle.seth(-20)
88     turtle.pd()
89     turtle.circle(15, 60)
90     turtle.pu()
91     # 牙齿
92     turtle.goto(0, 33)
93     turtle.seth(270)
94     turtle.pd()
95     turtle.forward(13)
96     turtle.seth(180)
97     turtle.forward(6)
98     turtle.seth(90)
99     turtle.forward(13)
100    turtle.pu()
101    turtle.goto(6, 33)
102    turtle.seth(270)
103    turtle.pd()
104    turtle.forward(13)
105    turtle.seth(180)
106    turtle.forward(6)
107    turtle.pu()
108    # 胡子
109    turtle.goto(30, 30)
110    turtle.seth(8)
111    turtle.pd()
112    turtle.circle(-40, 40)
113    turtle.pu()
114    turtle.goto(30, 25)
115    turtle.seth(-5)
116    turtle.pd()
117    turtle.circle(-40, 40)
118    turtle.pu()
119    turtle.goto(30, 20)
120    turtle.seth(-18)
121    turtle.pd()
122    turtle.circle(-40, 40)
123    turtle.pu()
124    turtle.goto(-30, 30)
125    turtle.seth(172)
126    turtle.pd()
127    turtle.circle(40, 40)
128    turtle.pu()
129    turtle.goto(-30, 25)
130    turtle.seth(188)
131    turtle.pd()
132    turtle.circle(40, 40)
133    turtle.pu()
134    turtle.goto(-30, 20)
135    turtle.seth(196)
136    turtle.pd()
    turtle.circle(40, 40)
```

```
137     turtle.pu()  
138
```

看一下效果：

帽子

接下来给福鼠画一顶帽子，我们打算把这顶帽子画得古风一点，原型选了电视剧中宋朝官员的官帽，代码实现如下所示：

```
1  def hat():  
2      turtle.goto(-20, 97)  
3      turtle.pd()  
4      turtle.seth(80)  
5      turtle.forward(20)  
6      turtle.seth(60)  
7      turtle.circle(-20, 140)  
8      turtle.seth(-85)  
9      turtle.forward(18)  
10     turtle.pu()  
11     turtle.goto(50, 115)  
12     turtle.pd()  
13     turtle.goto(-50, 115)  
14     turtle.pu()  
15     turtle.end_fill()  
16     turtle.goto(19, 115)  
17     turtle.pd()  
18     turtle.goto(50, 115)  
19     turtle.seth(0)  
20     turtle.fillcolor('gold2')  
21     turtle.begin_fill()  
22     turtle.circle(10)  
23     turtle.seth(90)  
24     turtle.circle(10, 90)  
25     turtle.seth(0)  
26     turtle.circle(10, 90)  
27     turtle.seth(270)  
28     turtle.circle(10, 90)  
29     turtle.seth(180)  
30     turtle.circle(10, 90)  
31     turtle.pu()  
32     turtle.end_fill()  
33     turtle.goto(-19, 115)  
34     turtle.pd()  
35     turtle.goto(-50, 115)  
36     turtle.seth(0)  
37     turtle.fillcolor('gold2')  
    turtle.begin_fill()
```

```

38     turtle.circle(10)
39     turtle.seth(90)
40     turtle.circle(10, 90)
41     turtle.seth(0)
42     turtle.circle(10, 90)
43     turtle.seth(270)
44     turtle.circle(10, 90)
45     turtle.seth(180)
46     turtle.circle(10, 90)
47     turtle.pu()
48     turtle.end_fill()
49

```

看一下效果：

身体

我们知道福鼠本身并不是真实存在的，而是一种以动物为原型的虚拟化形象，这种形象一般都是头部保留了动物本身的面貌，而身体是人类身体的形状，比如：西游记中孙悟空、猪八戒就是这样的，这里我们也把福鼠的身体画成人身体的形状，代码实现如下所示：

```

1  def body():
2      # 上半身
3      turtle.goto(-25, 8)
4      turtle.seth(240)
5      turtle.pd()
6      turtle.circle(150, 15)
7      turtle.seth(270)
8      turtle.circle(40, 15)
9      turtle.circle(15, 65)
10     turtle.seth(0)
11     turtle.forward(10)
12     turtle.circle(10, 100)
13     turtle.seth(90)
14     turtle.circle(10, 100)
15     turtle.seth(180)
16     turtle.forward(10)
17     turtle.pu()
18     turtle.goto(25, 8)
19     turtle.seth(-60)
20     turtle.pd()
21     turtle.circle(-150, 15)
22     turtle.seth(270)
23     turtle.circle(-40, 15)
24     turtle.circle(-15, 65)
25     turtle.seth(180)
26     turtle.forward(10)
27     turtle.circle(-10, 100)

```

```
27     turtle.seth(90)
28     turtle.circle(-10, 100)
29     turtle.seth(0)
30     turtle.forward(10)
31     turtle.pu()
32     turtle.goto(-20, 4)
33     turtle.pd()
34     turtle.goto(-16, -4)
35     turtle.goto(16, -4)
36     turtle.goto(20, 4)
37     turtle.pu()
38     turtle.goto(0, -5)
39     turtle.pd()
40     turtle.goto(0, -50)
41     turtle.pu()
42     turtle.goto(-30, -48)
43     turtle.pd()
44     turtle.goto(-30, -60)
45     turtle.pu()
46     turtle.goto(30, -48)
47     turtle.pd()
48     turtle.goto(30, -60)
49     turtle.pu()
50     turtle.goto(-30, -55)
51     turtle.pd()
52     turtle.goto(30, -55)
53     turtle.pu()
54     turtle.goto(-30, -60)
55     turtle.pd()
56     # 参数 1 为绘制颜色, 参数 2 为填充颜色
57     turtle.color('black', 'red')
58     turtle.begin_fill()
59     turtle.goto(30, -60)
60     turtle.pu()
61     # 下半身
62     turtle.goto(-25, -60)
63     turtle.pd()
64     turtle.goto(-35, -100)
65     turtle.goto(-20, -100)
66     turtle.goto(-0, -60)
67     turtle.goto(20, -100)
68     turtle.goto(35, -100)
69     turtle.goto(25, -60)
70     turtle.end_fill()
71     turtle.pu()
72     turtle.goto(-33, -100)
73     turtle.pd()
74     turtle.color('black', 'blue')
75     turtle.begin_fill()
76     turtle.seth(270)
```

```

77     turtle.circle(6, 180)
78     turtle.end_fill()
79     turtle.pu()
80     turtle.goto(33, -100)
81     turtle.pd()
82     turtle.color('black', 'blue')
83     turtle.begin_fill()
84     turtle.seth(270)
85     turtle.circle(-6, 180)
86     turtle.end_fill()
87     turtle.pu()
88

```

看一下效果：

文字

福鼠当然少不了祝福语，我找了四句：鼠你有钱、鼠你健康、鼠你快乐、鼠你幸运，最后，我们把这四个词语分别画在福鼠的四周，代码实现如下所示：

```

1  def word():
2      turtle.color('red')
3      turtle.goto(-30, 150)
4      turtle.pd()
5      turtle.write('鼠', move=False, align='center', font=('Arial', 14, 'normal'))
6      turtle.pu()
7      turtle.goto(-10, 150)
8      turtle.pd()
9      turtle.write('你', move=False, align='center', font=('Arial', 14, 'normal'))
10     turtle.pu()
11     turtle.goto(10, 150)
12     turtle.pd()
13     turtle.write('有', move=False, align='center', font=('Arial', 14, 'normal'))
14     turtle.pu()
15     turtle.goto(30, 150)
16     turtle.pd()
17     turtle.write('钱', move=False, align='center', font=('Arial', 14, 'normal'))
18     turtle.pu()
19     turtle.goto(-30, -150)
20     turtle.pd()
21     turtle.write('鼠', move=False, align='center', font=('Arial', 14, 'normal'))
22     turtle.pu()
23     turtle.goto(-10, -150)
24     turtle.pd()
25     turtle.write('你', move=False, align='center', font=('Arial', 14, 'normal'))
26     turtle.pu()
27     turtle.goto(10, -150)
28     turtle.pd()

```

```

29     turtle.write('健', move=False, align='center', font=('Arial', 14, 'normal'))
30     turtle.pu()
31     turtle.goto(30, -150)
32     turtle.pd()
33     turtle.write('康', move=False, align='center', font=('Arial', 14, 'normal'))
34     turtle.pu()
35     turtle.goto(-90, -10)
36     turtle.pd()
37     turtle.write('鼠', move=False, align='center', font=('Arial', 14, 'normal'))
38     turtle.pu()
39     turtle.goto(-90, -30)
40     turtle.pd()
41     turtle.write('你', move=False, align='center', font=('Arial', 14, 'normal'))
42     turtle.pu()
43     turtle.goto(-90, -50)
44     turtle.pd()
45     turtle.write('快', move=False, align='center', font=('Arial', 14, 'normal'))
46     turtle.pu()
47     turtle.goto(-90, -70)
48     turtle.pd()
49     turtle.write('乐', move=False, align='center', font=('Arial', 14, 'normal'))
50     turtle.pu()
51     turtle.goto(90, -10)
52     turtle.pd()
53     turtle.write('鼠', move=False, align='center', font=('Arial', 14, 'normal'))
54     turtle.pu()
55     turtle.goto(90, -30)
56     turtle.pd()
57     turtle.write('你', move=False, align='center', font=('Arial', 14, 'normal'))
58     turtle.pu()
59     turtle.goto(90, -50)
60     turtle.pd()
61     turtle.write('幸', move=False, align='center', font=('Arial', 14, 'normal'))
62     turtle.pu()
63     turtle.goto(90, -70)
64     turtle.pd()
65     turtle.write('运', move=False, align='center', font=('Arial', 14, 'normal'))
66     turtle.pu()
67     turtle.hideturtle()

```

调用代码如下：

```

1  if __name__ == '__main__':
2      head()
3      hat()
4      body()
5      word()
6      # 隐藏画笔
7      turtle.hideturtle()

```



```
8     # 停止画笔，但不关闭窗口
9     turtle.done()
```

看一下最终效果：

总结

本文我们使用 Python 的 turtle 库画了一只福鼠，不知道与大家想象中的福鼠形象一样吗？如果不一样呢，大家可以自己动手把这只福鼠修改成自己理想中的样子。

示例代码：<https://github.com/JustDoPython/python-100-day>

PS： 公众号内回复：Python，即可进入Python 新手学习交流群，一起**100天计划**！

-END-

Python 技术
关于 Python 都在这里