

Halcon 代码:

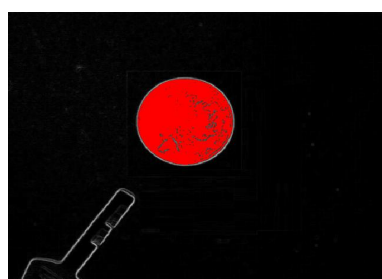
```

1. count_seconds(S1)
2. read_image(img1, 'C:/file-fy/1_2021-2022/2/03_机器视觉/作业/hw6/第六次
   作业图像/homework4.png')
3. rgb1_to_gray (img1, gray)
4. gauss_filter (gray, ImageGauss, 3)
5.
6. roberts (ImageGauss, ImageRoberts, 'gradient_sum')
7. threshold (ImageRoberts, Region, 0, 50)
8. *binary_threshold (gray, Region, 'max_separability', 'light', UsedTh
   reshould)
9. connection (Region, ConnectedRegions)
10. select_shape (ConnectedRegions, SelectedRegions, 'area', 'and', 100,
    99999)
11. area_center (SelectedRegions, Area, Row, Column)
12. dev_display (ConnectedRegions)
13. Area_Diameter:=2*sqrt(Area/3.1415926)
14. count_seconds(S2)
15. time:=S2-S1

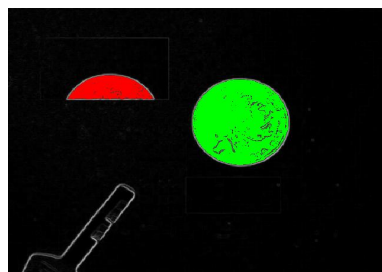
```

得到结果:

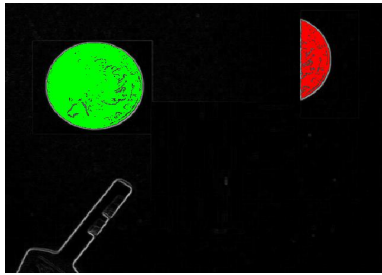
Area 为面积; row, column 对应圆心位置; Area\_Diameter 为计算得到的圆直径; time 为所用时间



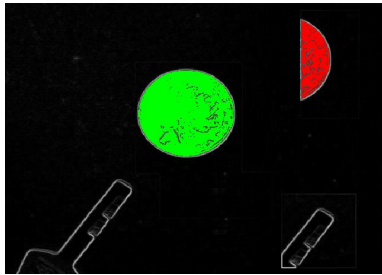
S1	15951.6
Area	13739
Row	168.572
Column	260.836
Area_Diameter	132.261
S2	15952.1
time	0.475994



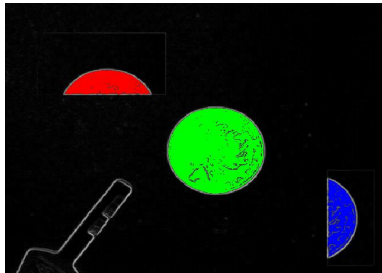
S1	15951.6
Area	[3238, 13739]
Row	[125.541, 176.572]
Column	[151.016, 342.836]
Area_Diameter	[64.2086, 132.261]
S2	16006.1
time	54.5113



S1	15951.6
Area	[3103, 13739]
Row	[85.8137, 127.572]
Column	[456.509, 130.836]
Area_Diameter	[62.8559, 132.261]
S2	16063.6
time	112.045



S1	15951.6
Area	[3103, 13739]
Row	[85.8137, 169.572]
Column	[456.509, 266.836]
Area_Diameter	[62.8559, 132.261]
S2	16096.1
time	144.527



S1	15951.6
Area	[3238, 13739, 2991]
Row	[125.541, 228.572, 332.749]
Column	[151.016, 310.836, 496.136]
Area_Diameter	[64.2086, 132.261, 61.7111]
S2	16134.0
time	182.42