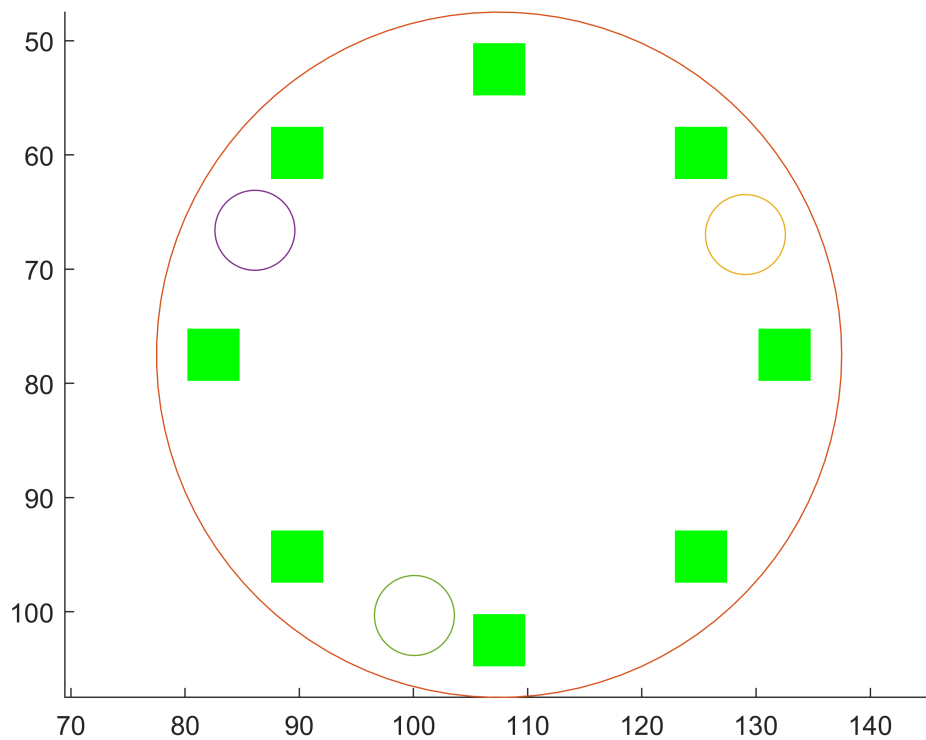```
led_coords = 8×2
   125.1777   95.1777
   107.5000 102.5000
    89.8223   95.1777
    82.5000   77.5000
    89.8223   59.8223
   107.5000   52.5000
   125.1777   59.8223
   132.5000   77.5000

holePos = 1×2
   129.0711   66.9791
holePos = 1×2
    86.1158   66.6042
holePos = 1×2
   100.0836 100.3254
```
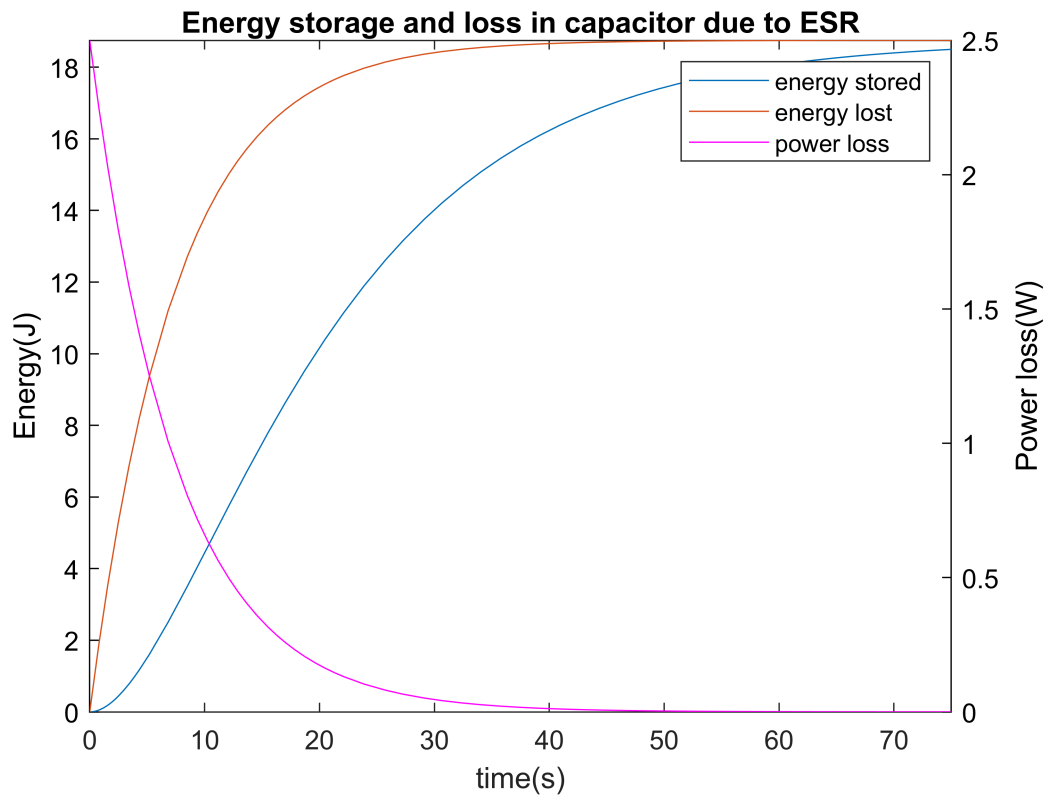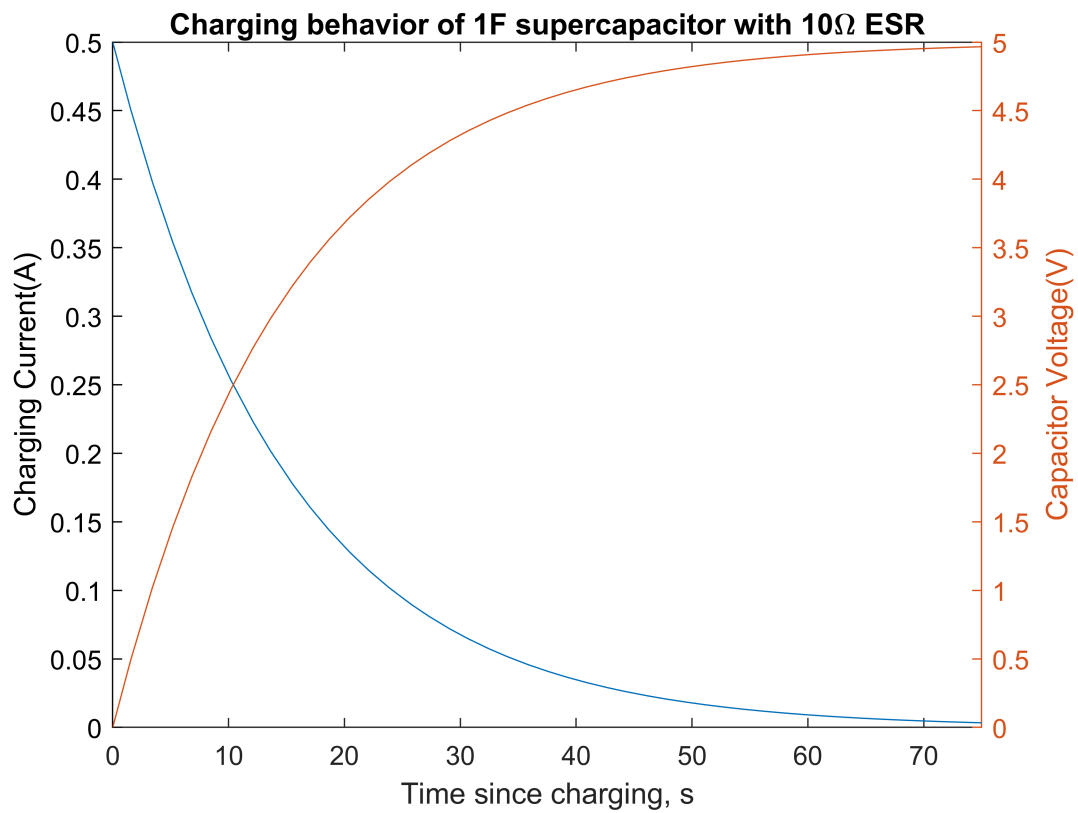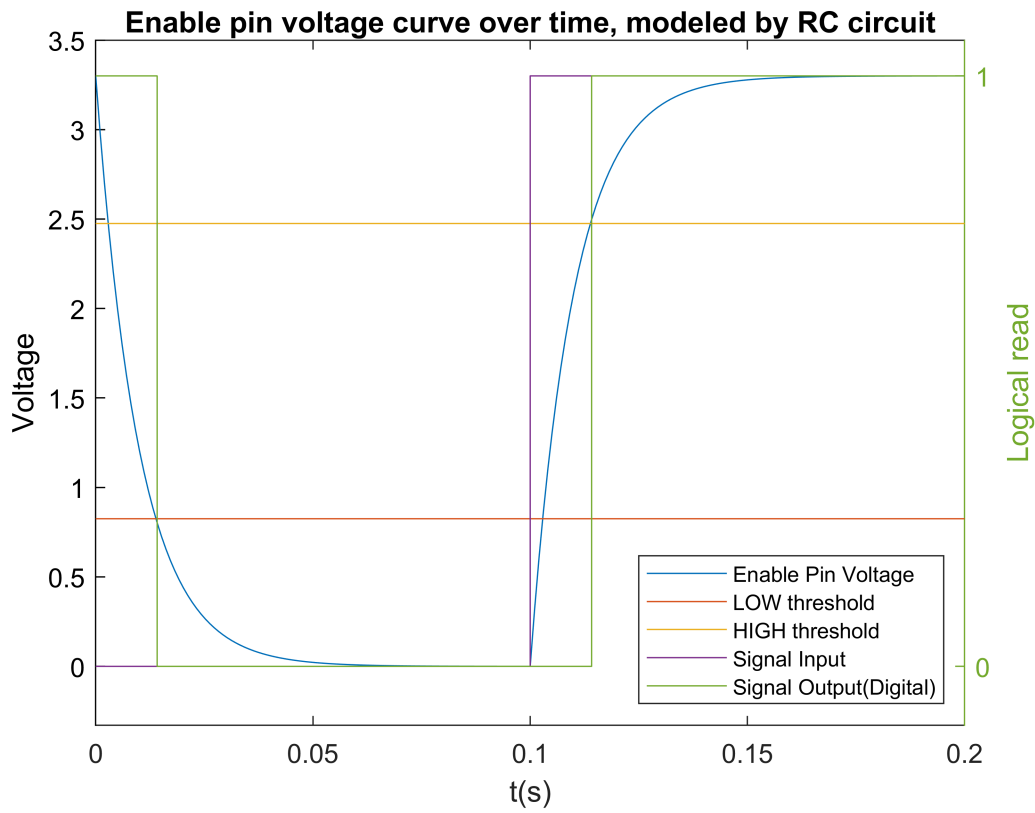


energy_per_cap_charge = $0.0052\ \mathrm{A\,V\,h}$

battery_life = $(5.2351\,\mathrm{h}\quad 3.5150\,\mathrm{h})$

battery_life_loss_one_cap_discharge = $(0.0042\,\mathrm{h}\quad 0.0028\,\mathrm{h})$

**Charging behavior of 1F supercapacitor with 10Ω ESR**

**Energy storage and loss in capacitor due to ESR**

```
enable_delay_time_ms = 14.1414
```

2

Enable pin voltage curve over time, modeled by RC circuit

Legend:
- Enable Pin Voltage
- LOW threshold
- HIGH threshold
- Signal Input
- Signal Output(Digital)

max_centripetal acceleration as a function of spin rate, given 0.68m radius