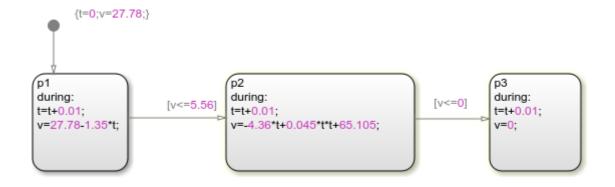
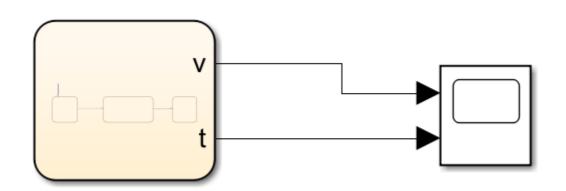
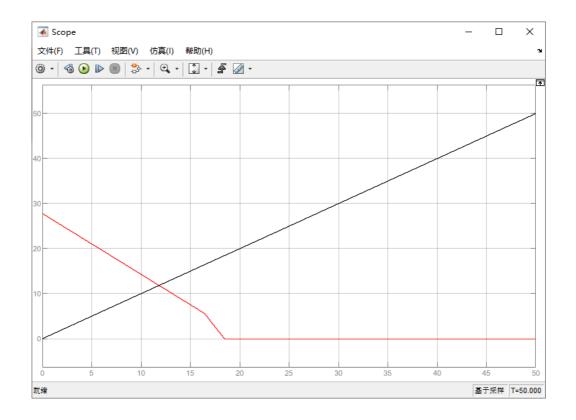
3.4 使用Simulink对汽车自动停车系统进行仿真

stateflow







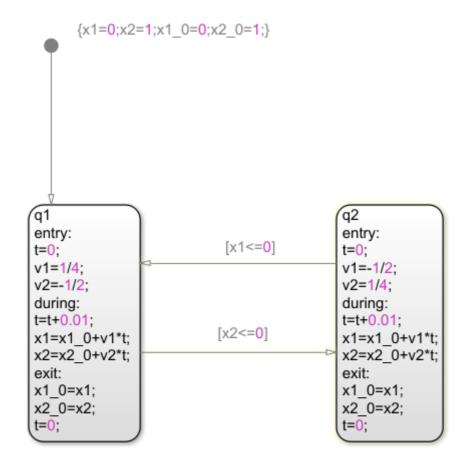
3.5 使用Simulink对水缸系统进行仿真

初始状态1

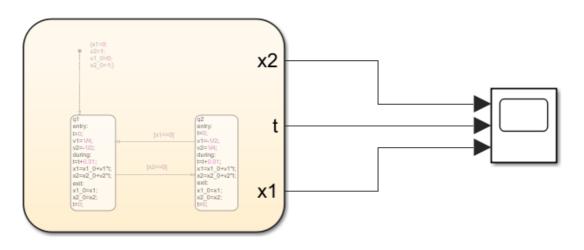
● x₁(缸1初始水量) = 0; x₂(缸2初始水量) = 1;

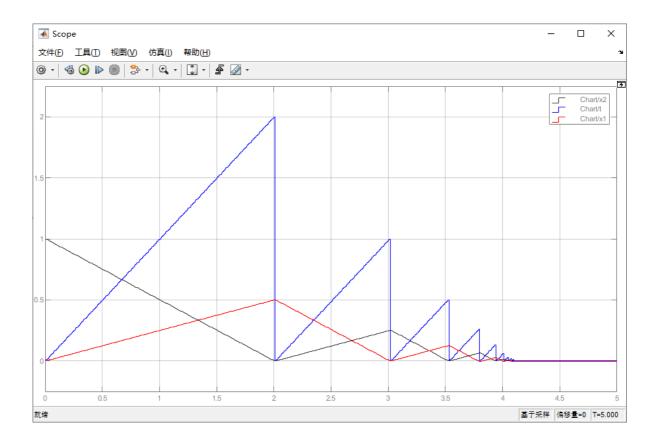
一、速度1: v1 = 0.5; v2 = 0.5; w = 0.75

stateflow图



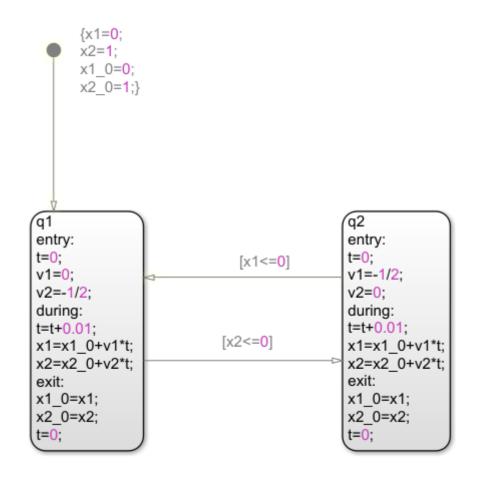
Simulink模型图

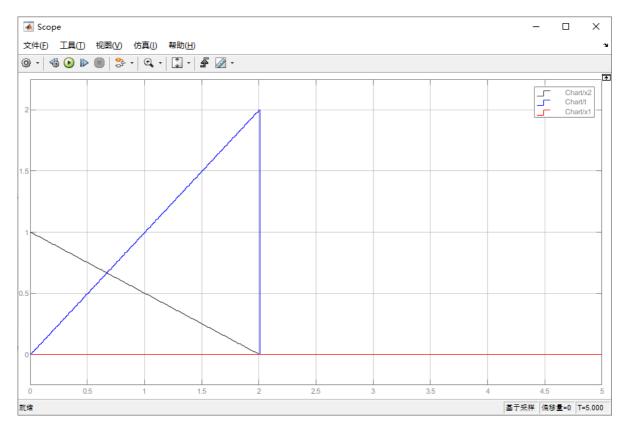




二、速度2: v1 = 0.5; v2 = 0.5; w = 0.5

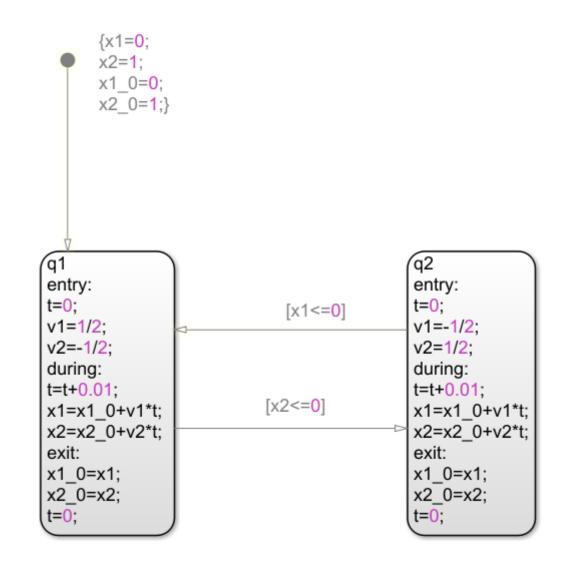
stateflow图



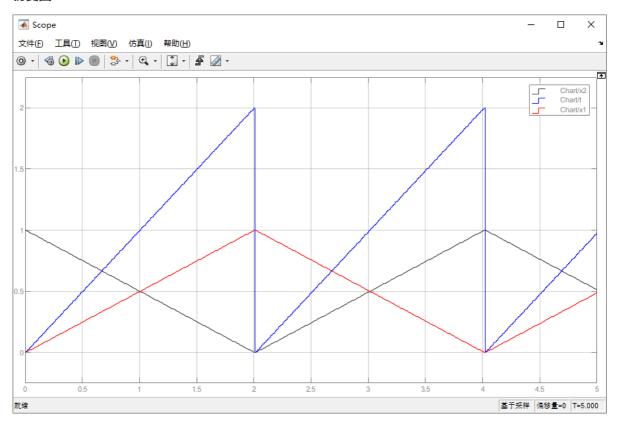


三、速度3: v1 = 0.5; v2 = 0.5; w = 1

stateflow图



仿真图



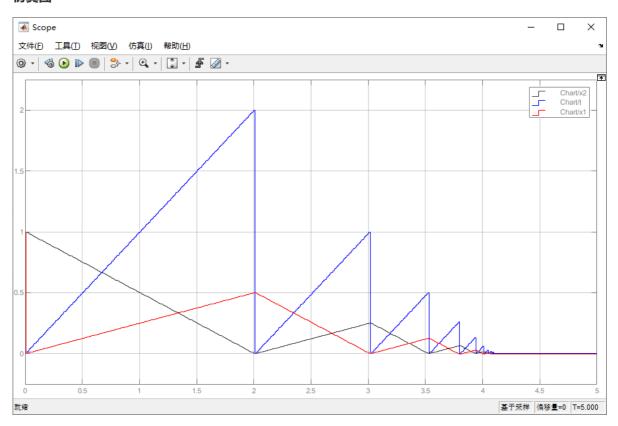
初始状态2

 $x_1(缸1初始水量) = 1;$ $x_2(缸2初始水量) = 1;$

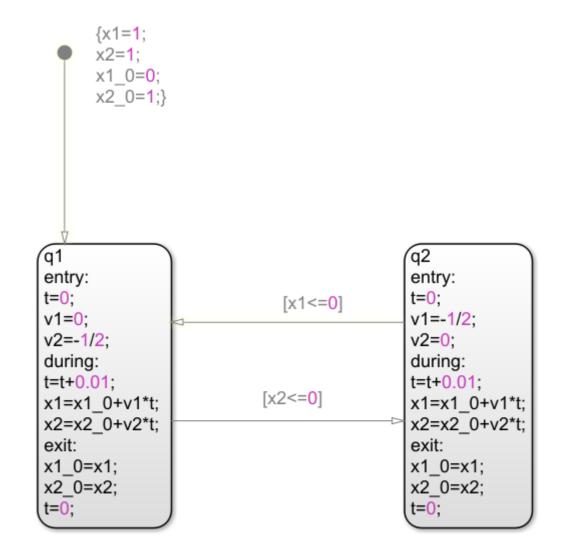
一、速度1: v1 = 0.5; v2 = 0.5; w = 0.75

stateflow

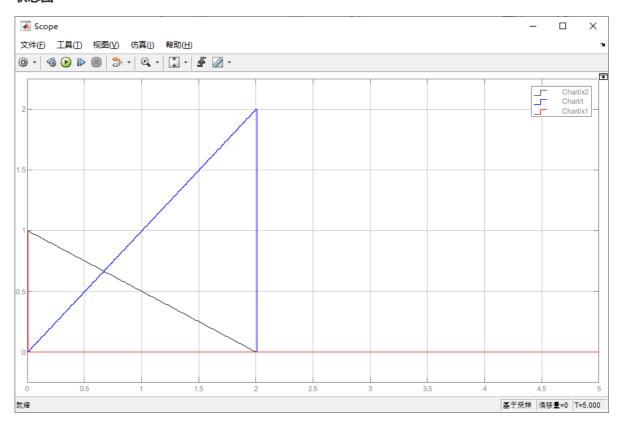
```
{x1=1};
      x2=1;
      x1_0=0;
      x2_0=1;}
                                              q2
q1
entry:
                                              entry:
t=0;
                                              t=0;
                              [x1 <= 0]
v1=1/4;
                                             v1=-1/2;
                                             v2=1/4;
v2=-1/2;
during:
                                              during:
                                             t=t+0.01;
t=t+0.01;
                           [x2 <= 0]
x1=x1_0+v1*t;
                                             x1=x1_0+v1*t;
x2=x2_0+v2*t;
                                             x2=x2_0+v2*t;
exit:
                                              exit:
x1 0=x1;
                                             x1 0=x1;
x2_0=x2;
                                             x2_0=x2;
t=0;
                                              t=0;
```



二、速度2: v1 = 0.5; v2 = 0.5; w = 0.5



状态图



三、速度3: v1 = 0.5; v2 = 0.5; w = 1

