```
function dx = doublePendulumSS(t,x)

m0 = 2; % Mass of cart
m1 = 1; % Mass of pendulum 1
m2 = 1; % Mass of pendulum 2
l1 = 1; % Length of rod 1
l2 = 0.5; % Length of rod 2
g  = 1; % Gravity

y_dot = x(2);
th1 = x(3);
th1_dot = x(4);
th2 = x(5);
th2_dot = x(6);

A = [   m0+m1+m2         m1*l1*cos(th1)     m2*l2*cos(th2);
     -m1*l1*cos(th1)        m1*l1^2              0;
     -m2*l2*cos(th2)           0                m2*l2^2];

B = -[m1*l1*sin(th1)*th1_dot^2 + m2*l2*sin(th2)*th2_dot^2;
                   m1*l1*g*sin(th1);
                   m2*l2*g*sin(th2)];

q = A\B;

dx = [y_dot; q(1); th1_dot; q(2); th2_dot; q(3)];

end
```

```
Not enough input arguments.

Error in doublePendulumSS (line 10)
y_dot = x(2);
```

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