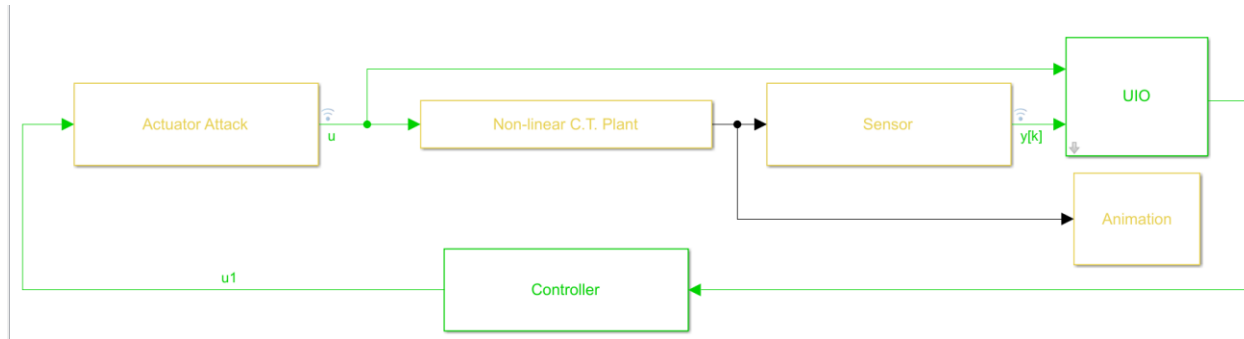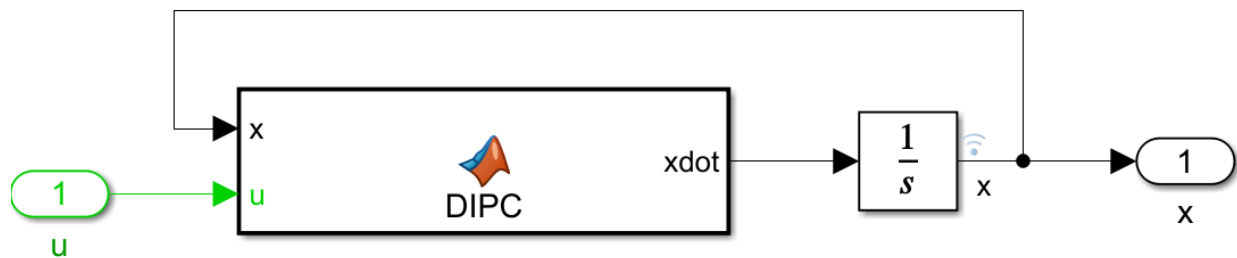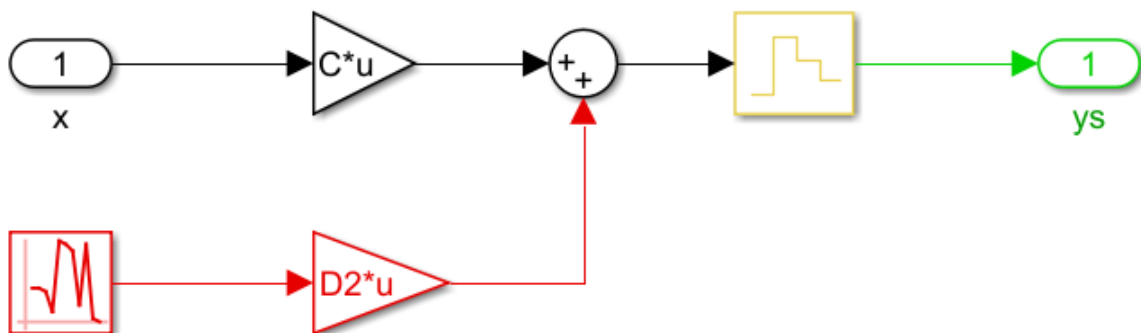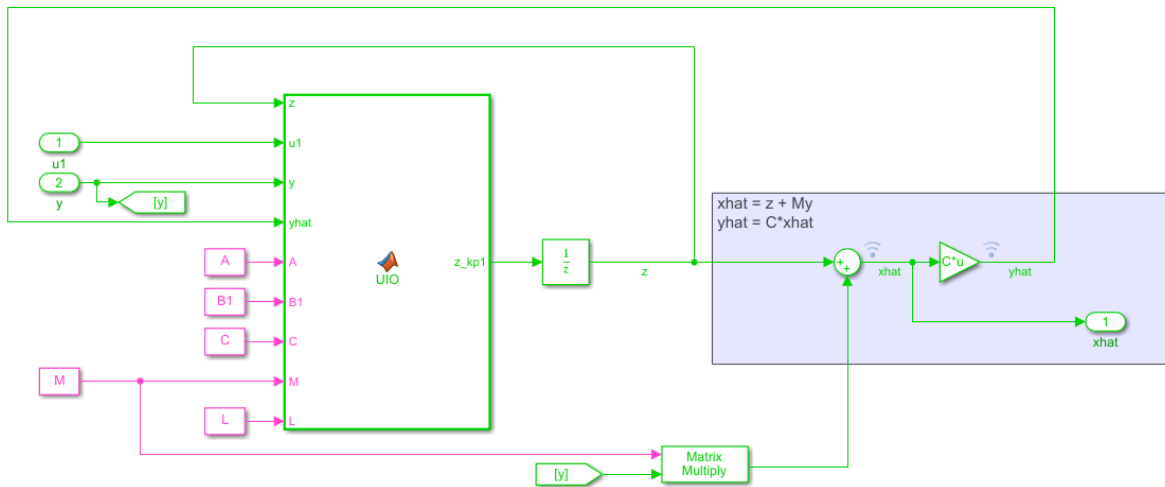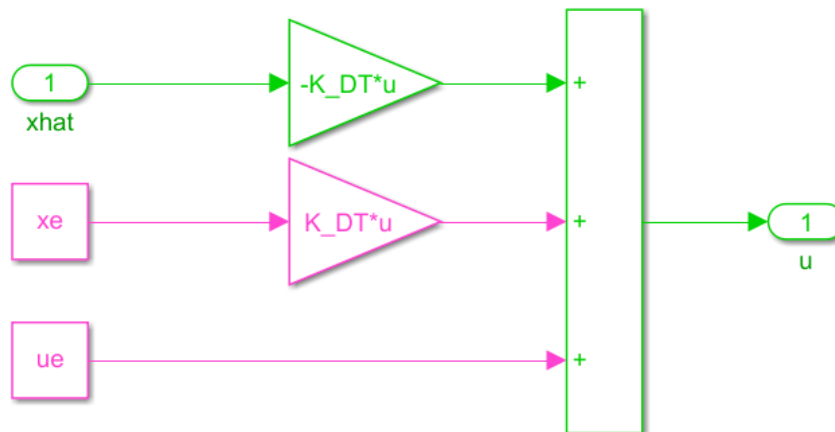# Simulink

Top Level:

Plant:

Sensors:

UIO:


```
function z_kp1 = UIO(z, u1, y, yhat, A, B1, C, M, L)

z_kp1 = (eye(size(M*C)) - M*C)*(A*z + A*M*y + B1*u1) + L*(y - yhat);

end
```
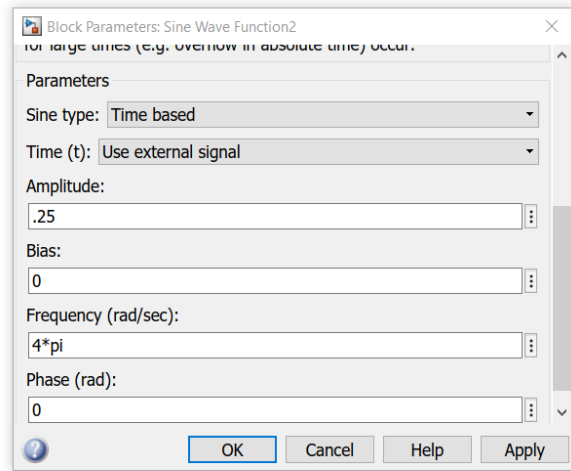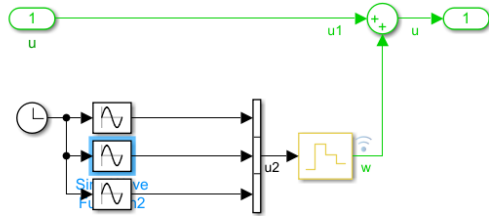
Controller:

$$u = -Kx + ue + Kxe = ue - Kdel\_x$$

Actuator:

Block Parameters: Sine Wave Function2

Parameters

for large times (e.g. overflow in absolute time) occur.

Sine type: Time based

Time (t): Use external signal

Amplitude:
.25

Bias:
0

Frequency (rad/sec):
4*pi

Phase (rad):
0

OK   Cancel   Help   Apply

Animation:

rotation1 = -theta1
rotation2 = theta2 - theta2