

```
{AB → 0.14, AC → 0.06, CF → 0.2, h → 0.01, d → 0.01, hSlider → 0.02, wSlider → 0.05,
ro → 8000, g → 9.807, Me → 1000., phi[t] → 1.0472, phi'[t] → 9.8696, phi''[t] → 0}
```

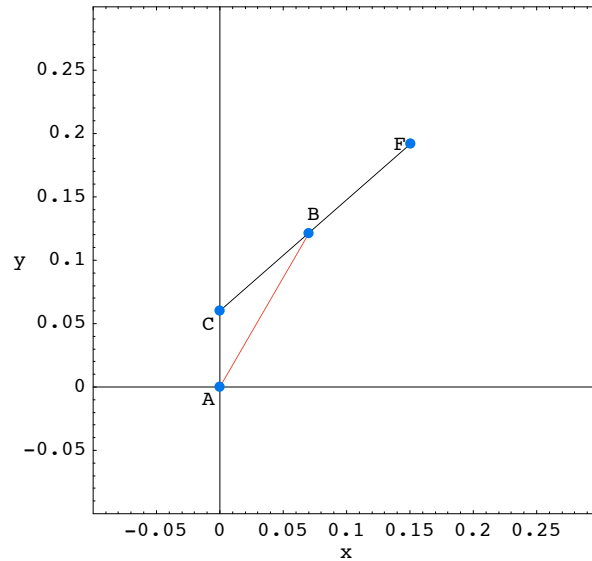
```
rB = {xB, yB, 0} = {0.07, 0.121244, 0} [m]
```

```
rC1 = {xC1, yC1, 0} = {0.035, 0.0606218, 0} [m]
```

```
rC = {xC, yC, 0} = {0, 0.06, 0} [m]
```

```
rF = {xF, yF, 0} = {0.150522, 0.191693, 0} [m]
```

```
rC3 = {xC3, yC3, 0} = {0.0752611, 0.125847, 0} [m]
```



Inertia forces and moments

Link 1

```
m1 = ro AB h d = 0.112 [kg]
```

```
IC1 = m1 (AB^2+h^2)/12 = 0.000183867 [kg m^2]
```

```
aC1 = {-3.40932, -5.90511, 0} [m/s^2]
```

```
alpha10 = {0, 0, 0} [rad/s^2]
```

```
Fin1 = -m1 aC1 = {0.381844, 0.661373, 0} [N]
```

```
F1 = Fin1 + G1 = {0.381844, -0.437011, 0} [N]
```

```
Min1 = M1 = -IC1 alpha10 = {0, 0, 0} [N m]
```

Link 2

```
m2 = ro hSlider wSlider d = 0.08 [kg]
```

```
IC2 = m2 (hSlider^2+wSlider^2)/12 = 0. [kg m^2]
```

```
aC2 = {-6.81864, -11.8102, 0} [m/s^2]
```

```
alpha20 = {0, 0, 87.47} [rad/s^2]
```

---

```
Fin2 = -m2 aC2 = {0.545491, 0.944818, 0} [N]
F2 = Fin2 + G2 = {0.545491, 0.160258, 0} [N]
Min2 = M2 = -IC2 alpha20 = {0, 0, 0.} [N m]

Link 3

m3 = ro CF h d = 0.16 [kg]
IC3 = m3 (CF^2+h^2)/12 = 0.000534667 [kg m^2]
aC3 = {-20.6416, -6.4373, 0} [m/s^2]
alpha30 = {0, 0, 87.47} [rad/s^2]
Fin3 = -m3 aC3 = {3.30266, 1.02997, 0} [N]
F3 = Fin3 + G3 = {3.30266, -0.539153, 0} [N]
Min3 = M3 = -IC3 alpha30 = {0, 0, -0.0467673} [N m]
M3e = -Sign[omega2]{ 0, 0, Me } = {0, 0, -1000.} [N m]
```