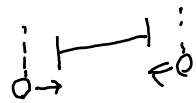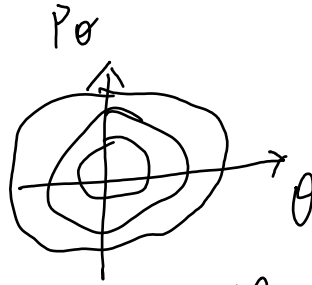classical
Mechanics

☺ simple

Constrained
Mechanics
☺ simple
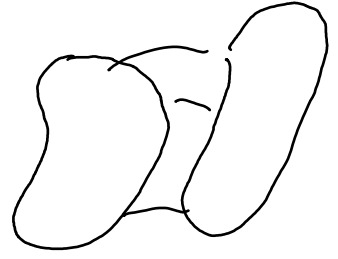☺ easy to
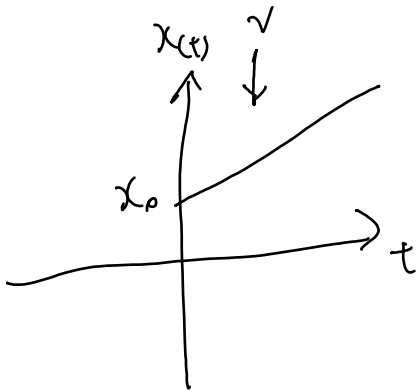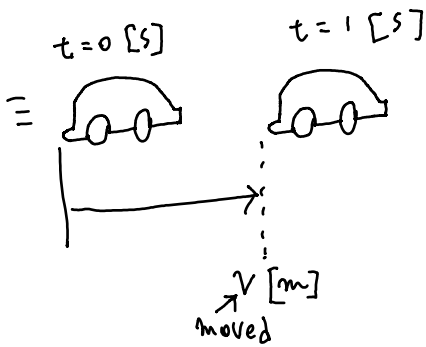implement
(relatively)

$P\theta$

Lagrangean
Mechanics
☺ generalized form
☺ momentum preservation

Continuum
Mechanics
☺ volumetric
representation

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t=0 [s]   t=1 [s]

V [m]
moved

t=0 [s]   t=1 [s]

V_0 =

$V_0 + a$ =
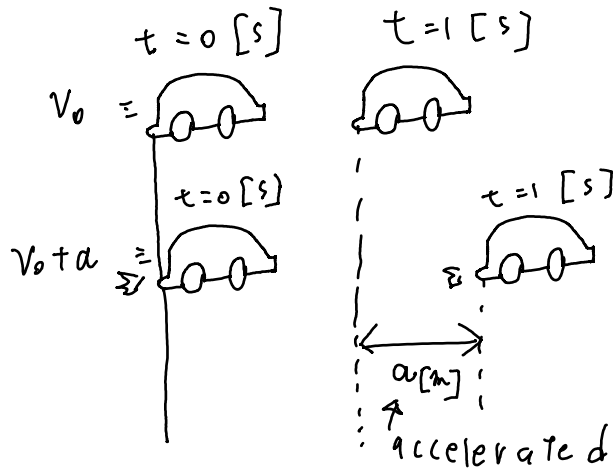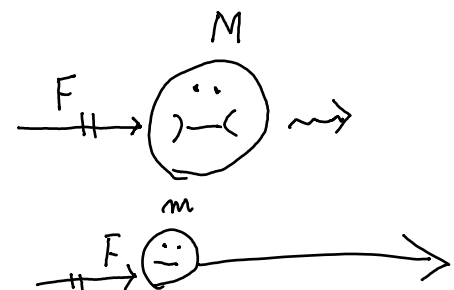
t=0 [s]   t=1 [s]

a [m]
accelerated

$x_{(t)}$ V

x_0

t

$$x_{(t)} = x_0 + Vt$$

$$\dot{x} = \frac{dx}{dt} = V$$

$V_{(t)}$ a

V_0

t

$$V_{(t)} = V_0 + at$$

$$\dot{V} = \frac{dV}{dt} = a$$

M

F

m

F

To PBD