If displacement (position) is given as function of time, we can get

velocity as function of time as $V=\frac{dx}{dt}$, and then the equation of acceleration as function of time can be obtained with the help of differentiation as $a=\frac{dV}{dt}$.

Displacement (Position, x) Differentiation
$$V = \frac{dx}{dt}$$
 Velocity $a = \frac{dV}{dt}$ Acceleration Differentiation

If acceleration is given as function of time, we can get velocity equation as

function of time as $\int_{V_1}^{V_2} dV = \int_{t_1}^{t_2} a.dt$ by integration. From velocity

equation as function of time, we can get displacement-time equation by

integration as
$$\int_{x_1}^{x_2} dx = \int_{t_1}^{t_2} V \cdot dt$$

Acceleration
$$\frac{\int dV = \int a.dt}{Integration}$$
 Velocity $\frac{\int dx = \int V.dt}{Integration}$ Displacement (Position, x)