

What is the angle of rotation and how is it related to angular velocity and angular acceleration.

Angle of rotation(θ) is defined as the angle between the *rotational motion axis* (i.e is the axis upon which a rotational body rotates) and the axis which is perpendicular to it.

Here Θ represents the *angle of rotation*, which is measured in **radians** alongside the x — *axis* (which is the *rotational motion axis*).

Suppose if 1 *revolution* equals to 360° then we can represent the angle of rotation for 1 *revolution* in radians as:

$$1 \text{ revolution} = 360^\circ = 2\pi \text{ radians}$$

The relationship between *angle of rotation* (θ) and *arc_length*(s) and *radius* (r) is given as:

$$\theta = \frac{s}{r}$$