

x_2 : distance calculated between the $1/2w$ of the camera (centre of the image captured by camera) and position of the object (relative length).

x_1 : width of the image (relative length).

w : min width captured by the camera (absolute length).

r : distance from centre of axis of rotation to the position of the calculated 'w' (absolute length).

θ : angle of rotation

$$\tan \theta = \frac{d}{r} = \frac{x \times w}{r}$$

$$\tan \theta = \frac{\left(x_2 - \frac{x_1}{2}\right) \times w}{r}$$

$$\theta = \tan^{-1} \frac{\left(x_2 - \frac{x_1}{2}\right) \times w}{r}$$

This angle of rotation should be given for both x and y axes. And precalculated value of θ_x and θ_y will be passed like

