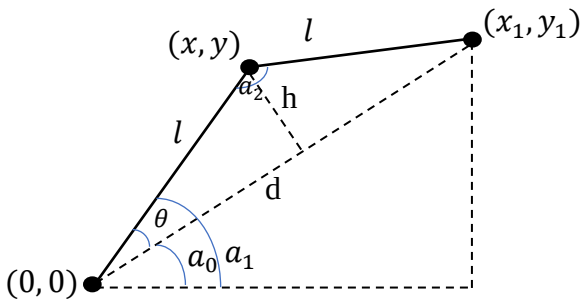

Now we have to find distance between (x_1, y_1) and $(0,0)$:

$distance = \sqrt{x_1^2 + y_1^2}$

$$a_0 = \cos^{-1}\left(\frac{x_1}{\sqrt{x_1^2+y_1^2}}\right)$$

d is half of the distance.

$d = \frac{1}{2}\sqrt{x_1^2 + y_1^2}$

$$\theta = \cos^{-1}\left(\frac{\sqrt{x_1^2+y_1^2}}{2l}\right)$$

$a_1 = a_0 + \theta$

$$a_1 = \cos^{-1}\left(\frac{x_1}{\sqrt{x_1^2+y_1^2}}\right) + \cos^{-1}\left(\frac{\sqrt{x_1^2+y_1^2}}{2l}\right)$$

$a_2 = \pi - 2\theta$

$$a_2 = \pi - 2\cos^{-1}\left(\frac{\sqrt{x_1^2+y_1^2}}{2l}\right)$$

Here, I use Radian for angles.