

$$\begin{split} &\mathbf{D}_{n-1} = [x_{D_{n-1}}, y_{D_{n-1}}] \\ &x_{D_{n-1}} = r \times \cos\left(\alpha + \pi - \frac{\phi}{2} + (n-1) \times \frac{\phi}{n-1}\right) = r \times \cos\left(\alpha + \pi + \frac{\phi}{2}\right) \\ &y_{D_{n-1}} = r \times \sin\left(\alpha + \pi - \frac{\phi}{2} + (n-1) \times \frac{\phi}{n-1}\right) = r \times \sin\left(\alpha + \pi + \frac{\phi}{2}\right) \end{split}$$