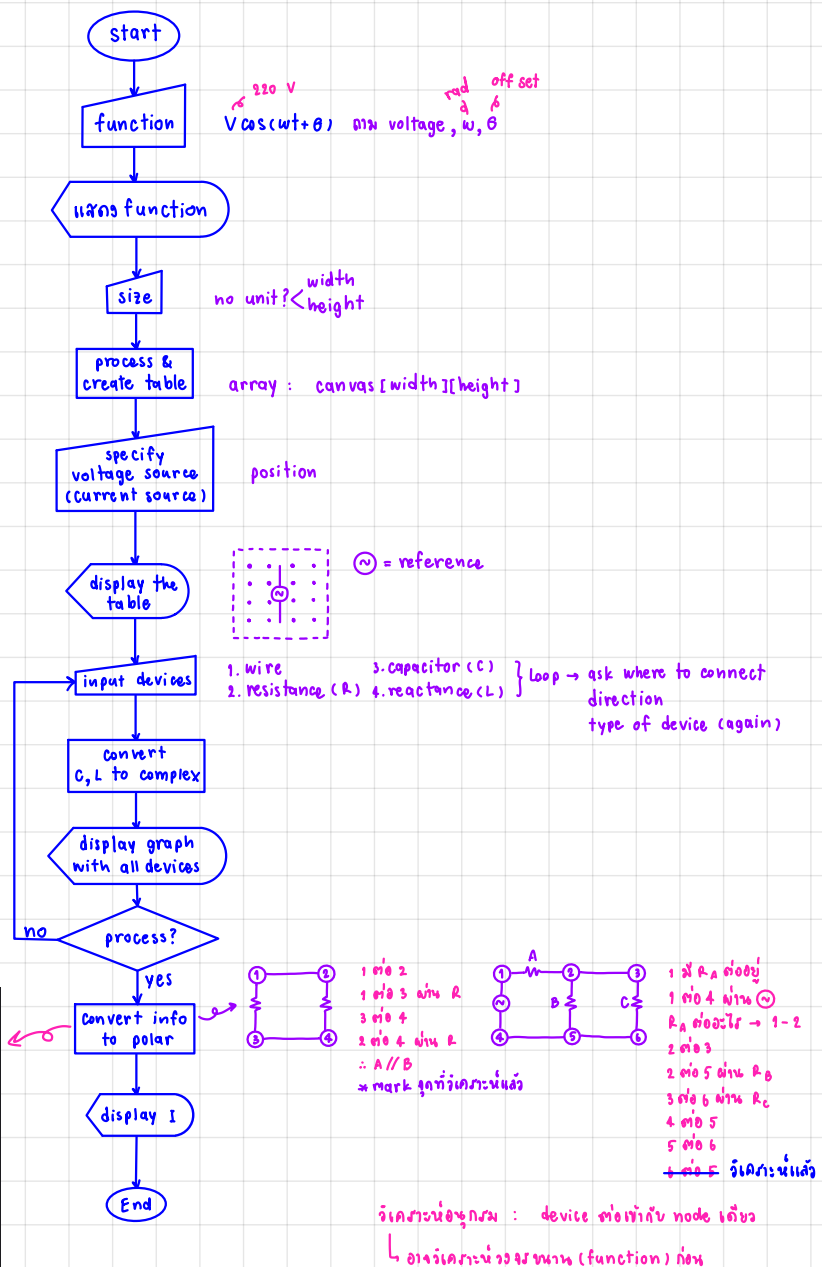


AC Analysis overall flowchart



2. Phasors

Phasors

A phasor is a complex number that represents the amplitude and phase of a sinusoid.

Rectangular form: $z = x + jy$

Polar form: $z = r \angle \phi$

The relationship between the rectangular form and polar form:

$$r = \sqrt{x^2 + y^2}, \quad \phi = \tan^{-1} \frac{y}{x}$$

$$x = r \cos \phi, \quad y = r \sin \phi$$

$$z = x + jy = r \angle \phi = r(\cos \phi + j \sin \phi)$$