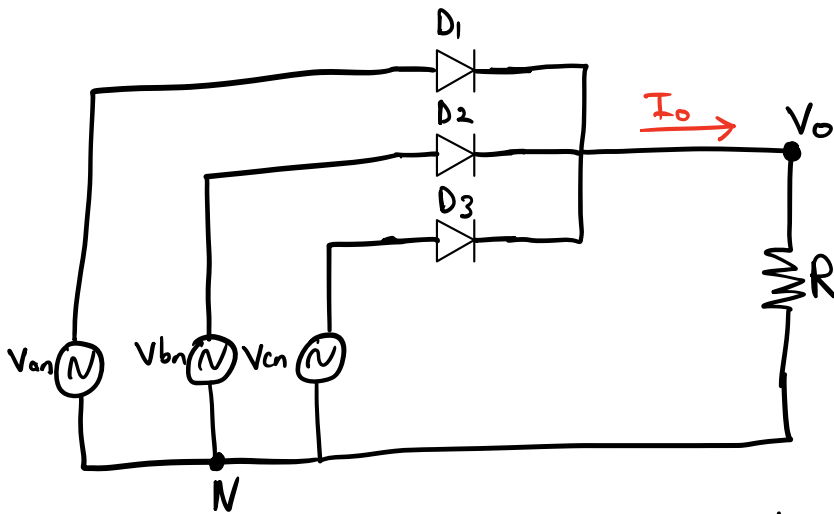


## Three-Phase Half Wave Rectifier

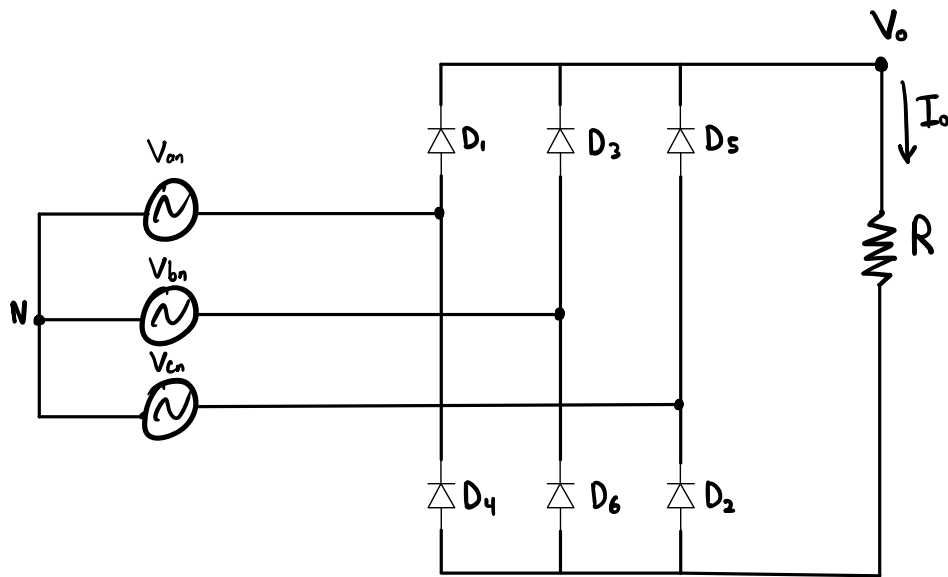


$$\langle V_o \rangle = \frac{1}{T} \int_0^T V_i \sqrt{2} \cos(\theta) d\theta \quad \text{where } T = \pi/3$$

$$\int_0^{\pi/3} \cos(\theta) d\theta = \sin(\theta) \Big|_0^{\pi/3} = \sin(\pi/3) - \cancel{\sin(0)}$$

$$\langle V_o \rangle = \frac{3}{\pi} \cdot V_i \sqrt{2} \cdot \frac{\sqrt{3}}{2} = V_i \frac{3\sqrt{2}}{2\pi}$$

# Three-Phase Full Wave Rectifier



$$\langle V_o \rangle = 2 \cdot \langle V_o (\text{Half Wave}) \rangle$$