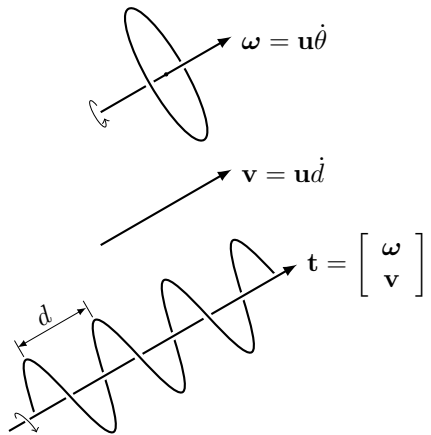
$$
\begin{aligned}
\text{unit vector}: &\quad \mathbf{u} = \boldsymbol{\omega} / \|\boldsymbol{\omega}\| \\
\text{delta angle}: &\quad \theta = \|\boldsymbol{\omega}\| \cdot \Delta t \\
\text{angular speed}: &\quad \omega = \|\boldsymbol{\omega}\| = \dot{\theta} \\
\text{linear speed}: &\quad v = \|\mathbf{v}\| = \dot{d} \\
\text{screw pitch}: &\quad h = v/\omega \\
\text{position vector}: &\quad \boldsymbol{\rho} = (\boldsymbol{\omega} \times \mathbf{v}) / \omega^2 \\
\text{twist vector}: &\quad \mathbf{t} = \begin{bmatrix} \boldsymbol{\omega} \\ \mathbf{v} \end{bmatrix} = \omega \begin{bmatrix} \mathbf{u} \\ h\mathbf{u} + \boldsymbol{\rho} \times \mathbf{u} \end{bmatrix}
\end{aligned}
$$



development of cylinder