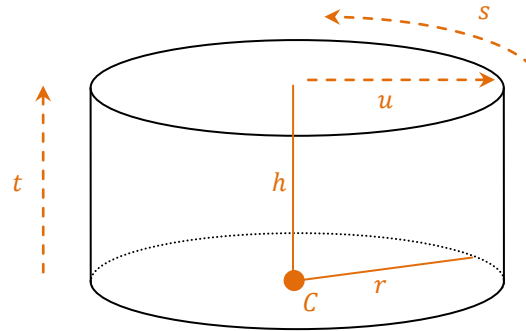


Parametric Cylinder (Volume)

The volume of a cylinder can be described in terms of x , y , and z by introducing 3 parameters (s , t , and u). This equation describes the cylinder section pointing vertically with a center point C , a radius r , and a height of h .



$$\begin{aligned}x &= x_c + r \cdot u \cdot \cos(2\pi \cdot s) \\y &= y_c + r \cdot u \cdot \sin(2\pi \cdot s) \\z &= z_c + h \cdot t\end{aligned}$$

An example of the parametric equations defining the cylinder volume is shown below. The s , t , and u values are sampled at an even interval.

