$$
\begin{aligned}
\bar{r} &= \bar{v} \times \bar{o} \\
\bar{s} &= \bar{o} \times \bar{u} \\
\bar{n} &= \bar{u} \times \bar{v} \\
k_r &= \bar{r} \cdot (\bar{C}_a - \bar{V}) \\
k_s &= \bar{s} \cdot (\bar{C}_a - \bar{V}) \\
k_n &= \bar{n} \cdot (\bar{C}_a - \bar{V}) \\
x(\theta,v) &= \frac{\bar{r} \cdot D\_A(\theta, v) + k_r \delta(\theta, v)}{\bar{n} \cdot D\_A(\theta, v) + k_n \delta(\theta, v)} \\
y(\theta,v) &= \frac{\bar{s} \cdot D\_A(\theta, v) + k_s \delta(\theta, v)}{\bar{n} \cdot D\_A(\theta, v) + k_n \delta(\theta, v)}
\end{aligned}
$$

where

- $\bar{v} \in \mathbb{R}^3$
- $\bar{o} \in \mathbb{R}^3$
- $\bar{u} \in \mathbb{R}^3$
- $\bar{V} \in \mathbb{R}^3$
- $\bar{C}_a \in \mathbb{R}^3$
- $\theta \in \mathbb{R}$
- $v \in \mathbb{R}$
- $D\_A \in \mathbb{R}, \mathbb{R} \to \mathbb{R}^3$
- $\delta \in \mathbb{R}, \mathbb{R} \to \mathbb{R}$