$$E\_LSCM = \sum_T A_T \| M_T v_T - \begin{bmatrix} 0 & -1 \\ 1 & 0 \end{bmatrix} M_T u_T \|_2^2$$

where

$$v_i \in \mathbb{R}^3$$

$$u_i \in \mathbb{R}^3$$

$$M_i \in \mathbb{R}^{2\times 3}$$

$$A_i \in \mathbb{R}$$