Original

$$T_{X_t}^{-,X_{t-1}} = \dot{x}t$$

$$T_{X_t}^{-,0} = T_{X_{t-1}}^0 T_{X_t}^{-,X_{t-1}}$$

$$T_{X_t}^{-,K} = T_0^K T_{X_t}^{-,0}$$

$$T_{L_t}^{-,LK} = T_X^L T_{X_t}^{-,K} T_L^X$$

$$T_{L_t}^{LK} = ICP(sen = T_{L_t}^{-,LK}, ref = [I|\vec{0}])$$

$$T_{X_t}^{X_K} = T_L^X T_{L_t}^{LK} T_X^L$$

$$T_{X_t}^0 = T_{X_K}^0 T_{X_t}^{X_K}$$

Modified

$$T_{X_t}^{-,X_{t-1}} = \dot{x}t$$

$$T_{X_t}^{-,0} = T_{X_{t-1}}^0 T_{X_t}^{-,X_{t-1}}$$

(where $T_{X_0}^0$ is initial guess)

$$T_{L_t}^{-,L_{t-1}} = T_X^L T_{X_t}^{-,X_{t-1}} T_L^X$$

$$T_{L_t}^{L_{t-1}} = ICP(T_{L_t}^{-,L_{t-1}}, [I|\vec{0}])$$

$$T_{X_t}^{X_{t-1}} = T_L^X T_{L_t}^{L_{t-1}} T_X^L$$

$$T_{X_t}^0 = T_{X_{t-1}}^0 T_{X_t}^{X_{t-1}}$$

T_0^K is reassigned everytime the robot movement is above threshold
K: Keyframe, introduced in order to prevent drift caused from frame-by-frame comparison