f_i

$(x,y) \leftarrow f_i \rightarrow c_i \rightarrow c_i \xrightarrow{KLT} c_{i+1}$

H_i

(x,y)

$$S_i = \left\{ P^i, X^i, \Big| c^i, F^i, T^i \right\}$$

2 3

WHILE TRUE:

$$P^{i+1} = \text{track KLT}\left(P^i, I^{i+1}\right)$$

$$R^{i+1} = P_nP\left(X^i, P^{i+1}\right)$$

$$S^{i+1} = \text{do Iteration}(S^i, \text{img})$$

$$c^{i+1} = \text{track KLT}\left(c^i, I^{i+1}\right)$$

$$N = (x,y)$$

$$\text{Lost} = C_i \setminus C_{i+1}$$

$$F_{i+1} = F_i \setminus \text{Lost}$$

$$T_{i+1} = T_i \setminus \text{Lost}$$

α_{th}

for $j = 1 : \text{size}\left(T_{i+1}\right)$

$\vdots$

$$\alpha = \text{get Angle}\left(C^{i+1}(j), F^{i+1}(j), T_{i+1}(j)\right)$$

if $\alpha > \alpha_{th}$:

$$P^i = P^i + F^{i+1}(j)$$

$$X^i = X^i + \text{triangulate}\left(C^{i+1}(j), F^{i+1}(j), T_{i+1}(j)\right)$$

end

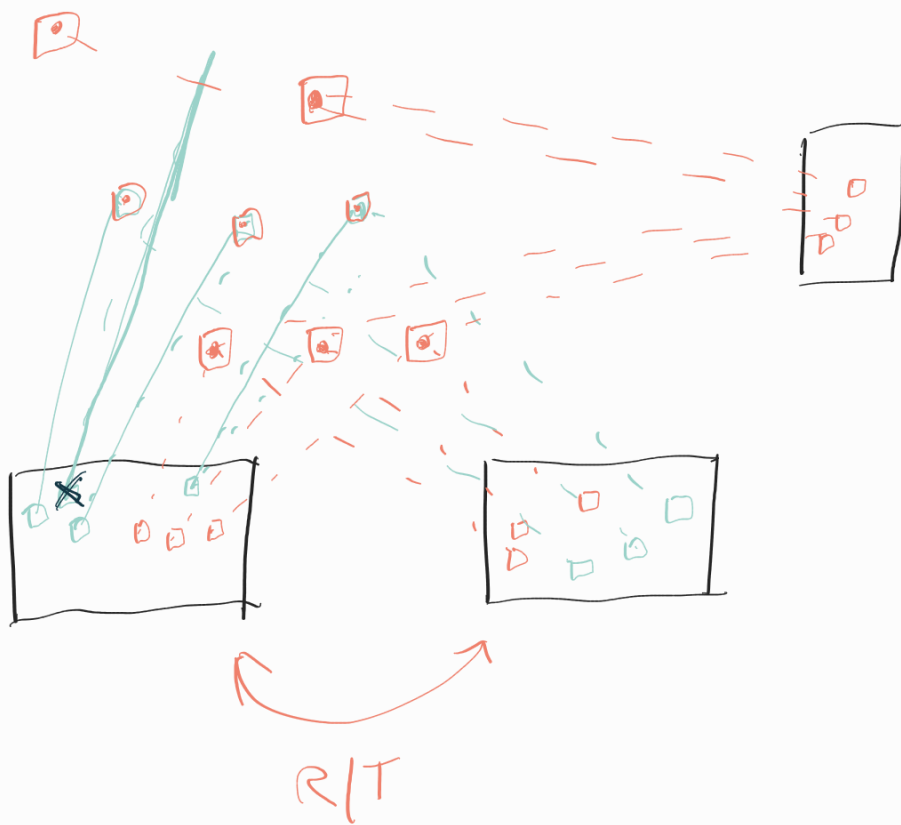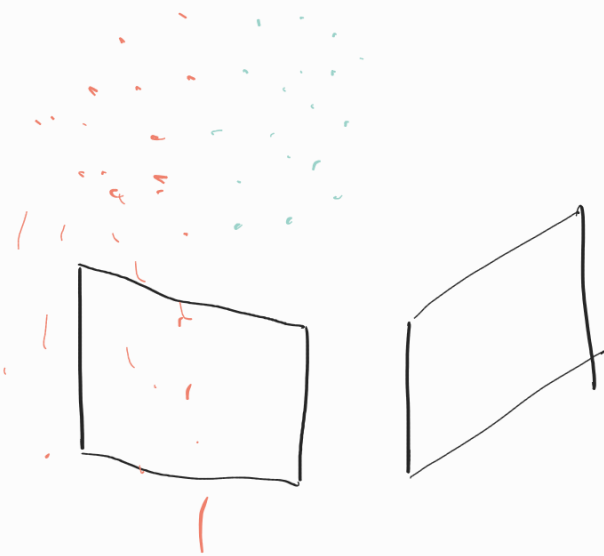$$N = \text{harris Features}(\text{img})$$

$$C^{i+1} = C^{i+1} + N$$

$$F^{i+1} = F^{i+1} + N$$

$$T^{i+1} = T^{i+1} + \text{ones}(\text{size}(N)) \cdot * R^{i+1}$$

$$N = \begin{array}{c} (x_1, y_1) \leftrightarrow R^{i+1} \\ \vdots \\ (x_i, y_i) \leftrightarrow R^{i+1} \\ (x_i, y_i) \leftrightarrow R^{i+1} \end{array}$$

$$N^{K \times 2}$$

Match

matchprev.

save new

R|T