

# SCOPO DELLA TESI

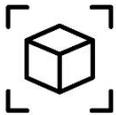




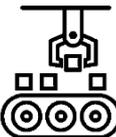
ABB YuMi Single arm



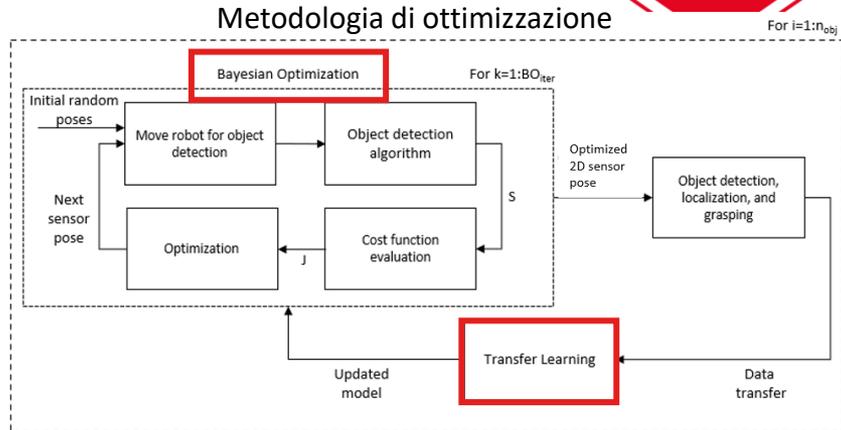
Camera 2D Cognex AE3 In-Sight



riconoscimento

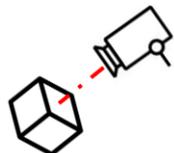


manipolazione





ottimizzare la posizione della fotocamera



allineare



riconoscimento oggetto

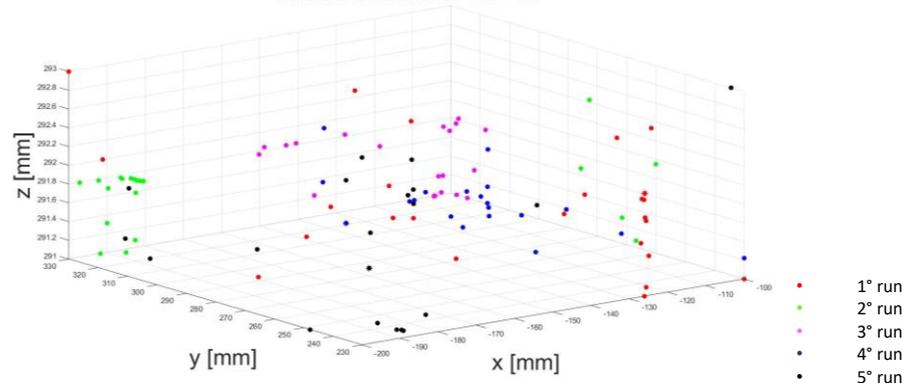


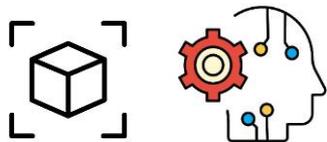
accuratezza presa

ripetuto finché  $n_{\infty}$  presi

$$J = -K_s S - K_r (S - \min(S; S_r)) + K_p (\max(S; S_p) - S) + K_\delta \sum_{j=0}^{n_{obj}} P_\delta^j$$

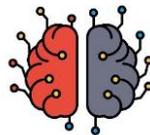
Camera coordinates - BO+TL





→ BO esplorazione ed exploitation

- Ricostruire lo scenario di lavoro



→ TL

- Sfruttare le informazioni acquisite
- Minimizzare  $n_{\text{iterazioni}}$



→  $J = -K_s S - K_r (S - \min(S; S_r)) + K_p (\max(S; S_p) - S) + K_\delta \sum_{j=0}^{n_{\text{obj}}} P_\delta^j$

- Accuratezza della presa



→ Ambiente con luce controllata

- Robustezza sensibilità alla luce



→ Livello di soglia dello Score

- Riduzione tempo ciclo



→ Diversi oggetti & setup

- Flessibilità