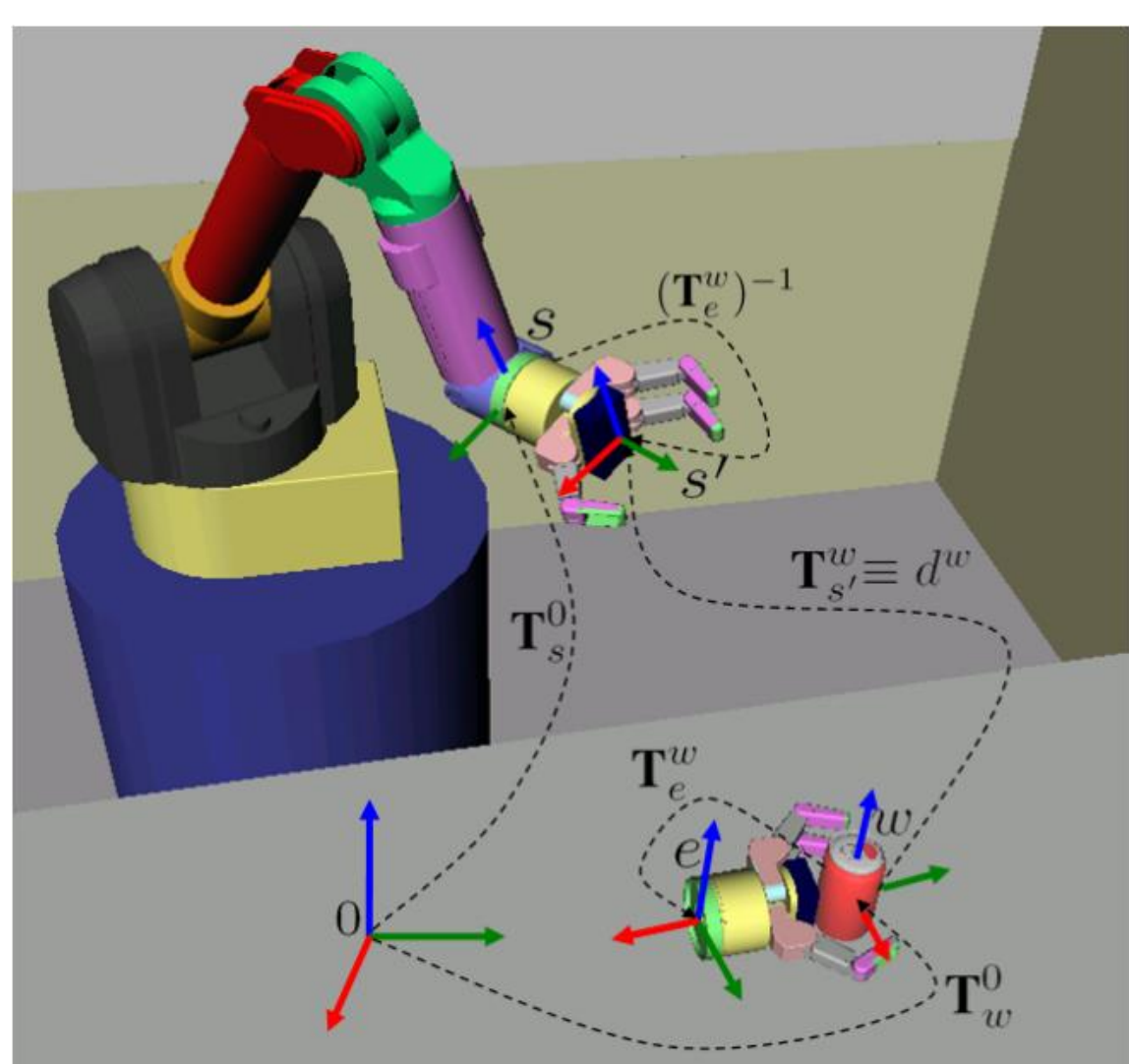


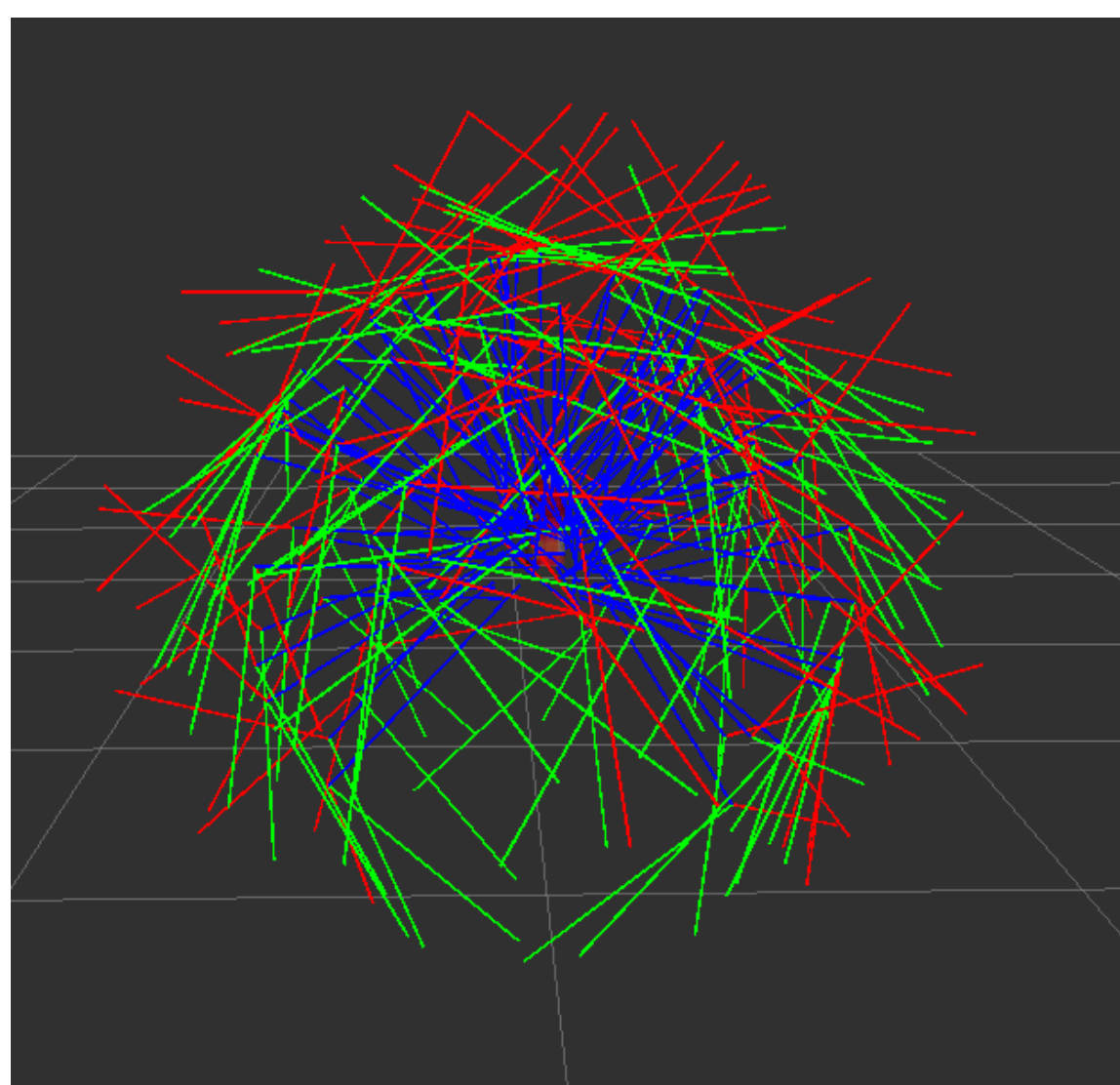
Nonverbal Communication Modality



Task Space Regions

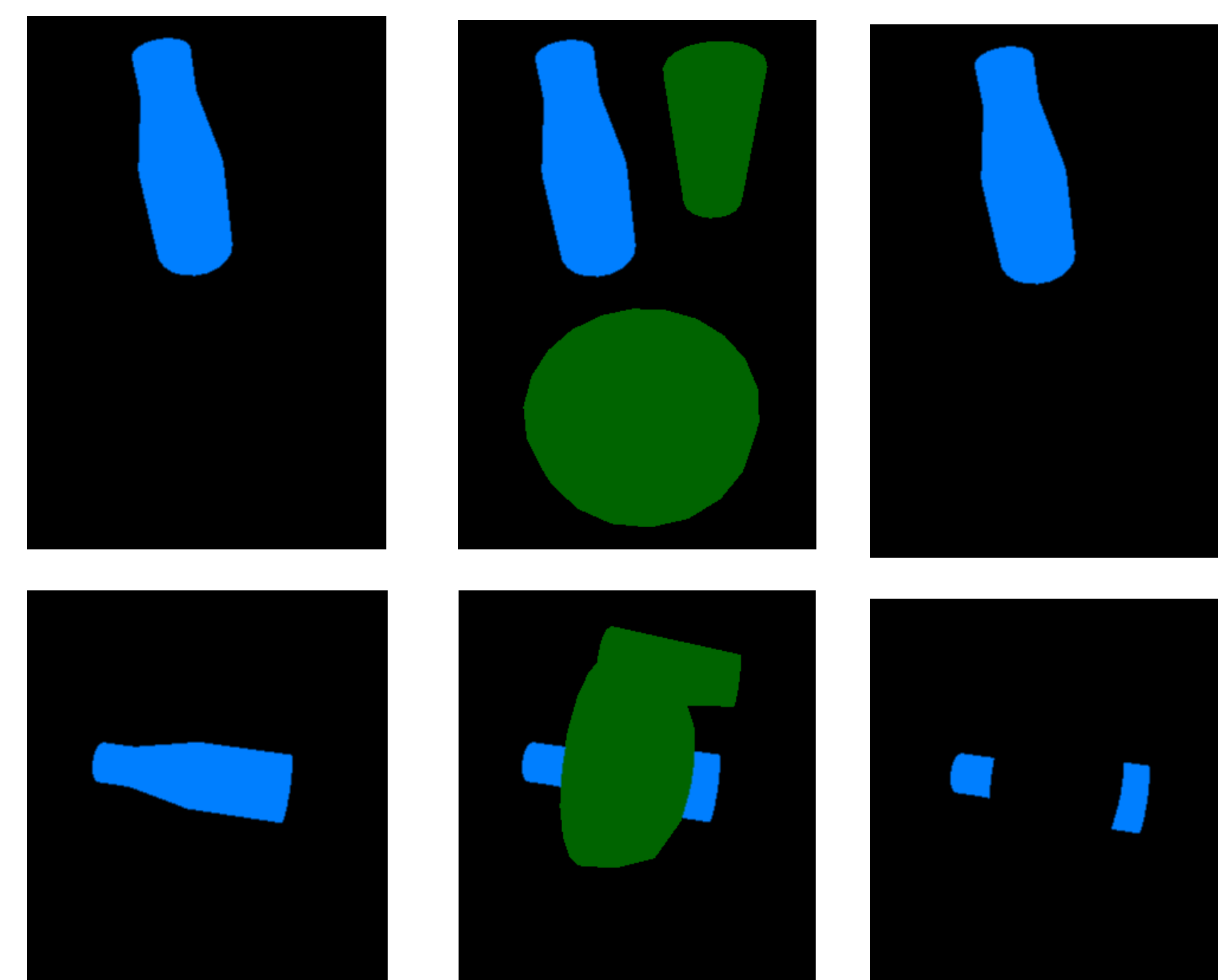
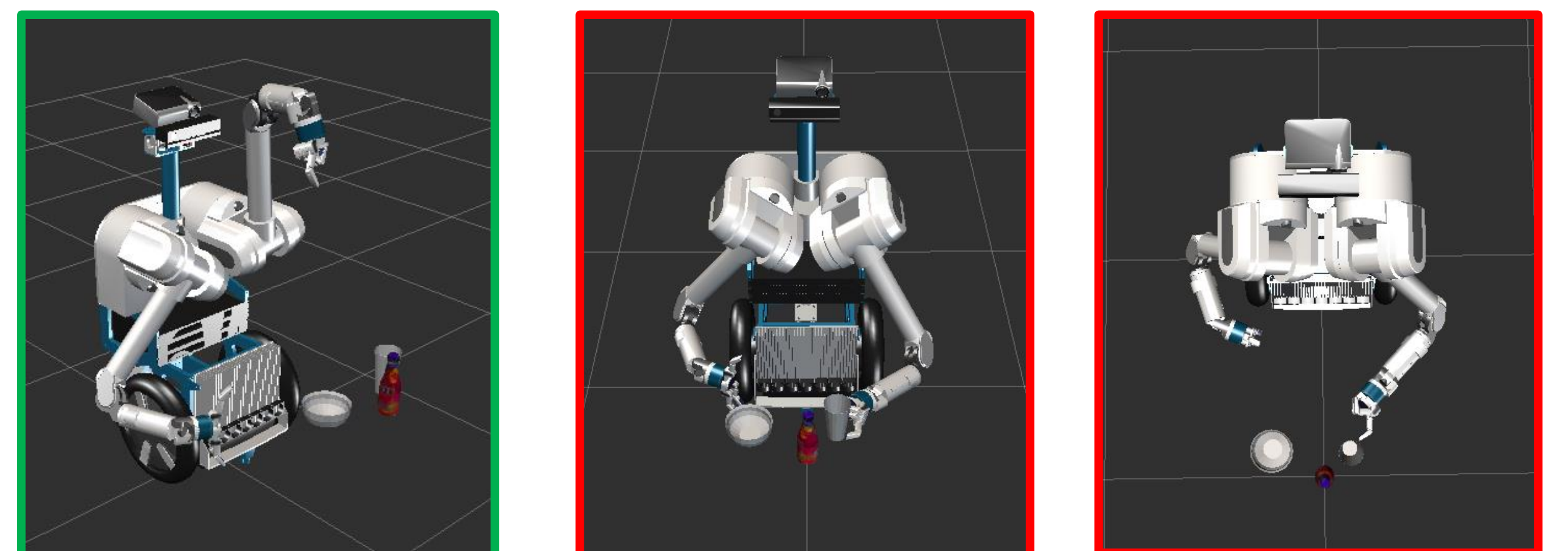


$$B^w = \begin{bmatrix} x_{min} & x_{max} \\ y_{min} & y_{max} \\ z_{min} & z_{max} \\ \psi_{min} & \psi_{max} \\ \theta_{min} & \theta_{max} \\ \phi_{min} & \phi_{max} \end{bmatrix}$$



$$\begin{bmatrix} 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ -\pi & \pi \\ 0 & \pi \\ -\pi & \pi \end{bmatrix} \begin{bmatrix} 0 & 0 \\ 0 & 0 \\ -0.75 & 1 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \end{bmatrix}$$

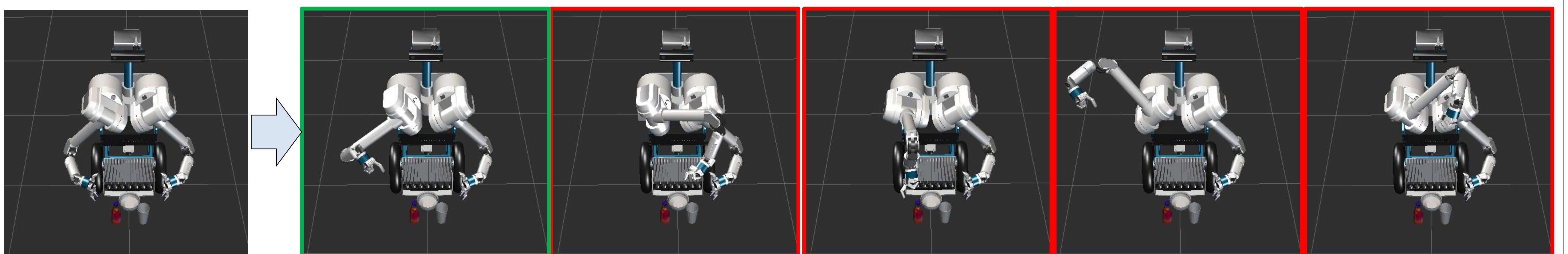
Occlusion Detection



100%

29%

Naturalness and Intent Expressiveness



Comparison Based Active Learning

