Robust Few-Shot Pose Estimation of Articulated Robots using Monocular Cameras and Deep-Learning-based Keypoint Detection

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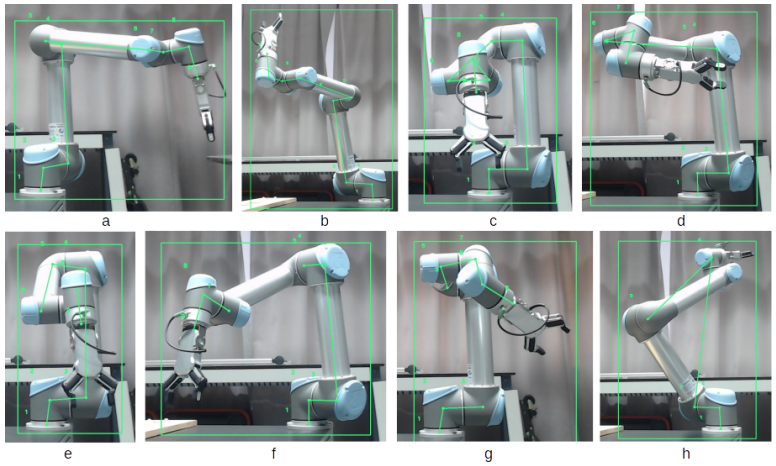
- Inspired by advancements in human pose estimation: pose estimation based on CNNs for robot arms
- Detecting keypoints of the robot representing its 2D skeleton model & determine 3D keypoint positions from encoders
- 2D - 3D point correspondences serve pose estimation between robot and camera by solving the perspective-n-point problem
- Promising results for a few-shot approach
- Dataset is made public and open source



Results of the robot keypoint detection