

Viewpoint Selection for Visual Failure Detection

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- Visual differences in outcomes of robotics tasks may be fine-grained and observable from certain viewpoints only
- Table assembly task example
Success: tip of the screw *in* the hole
Failure: tip of the screw *near* the hole
- Static and active viewpoint selection with fine-grained random forests and SVMs trained on deep CNN features
- Failures detected more accurately from active viewpoints over static viewpoints



Fig: Views for a failed attempt of furniture assembly