





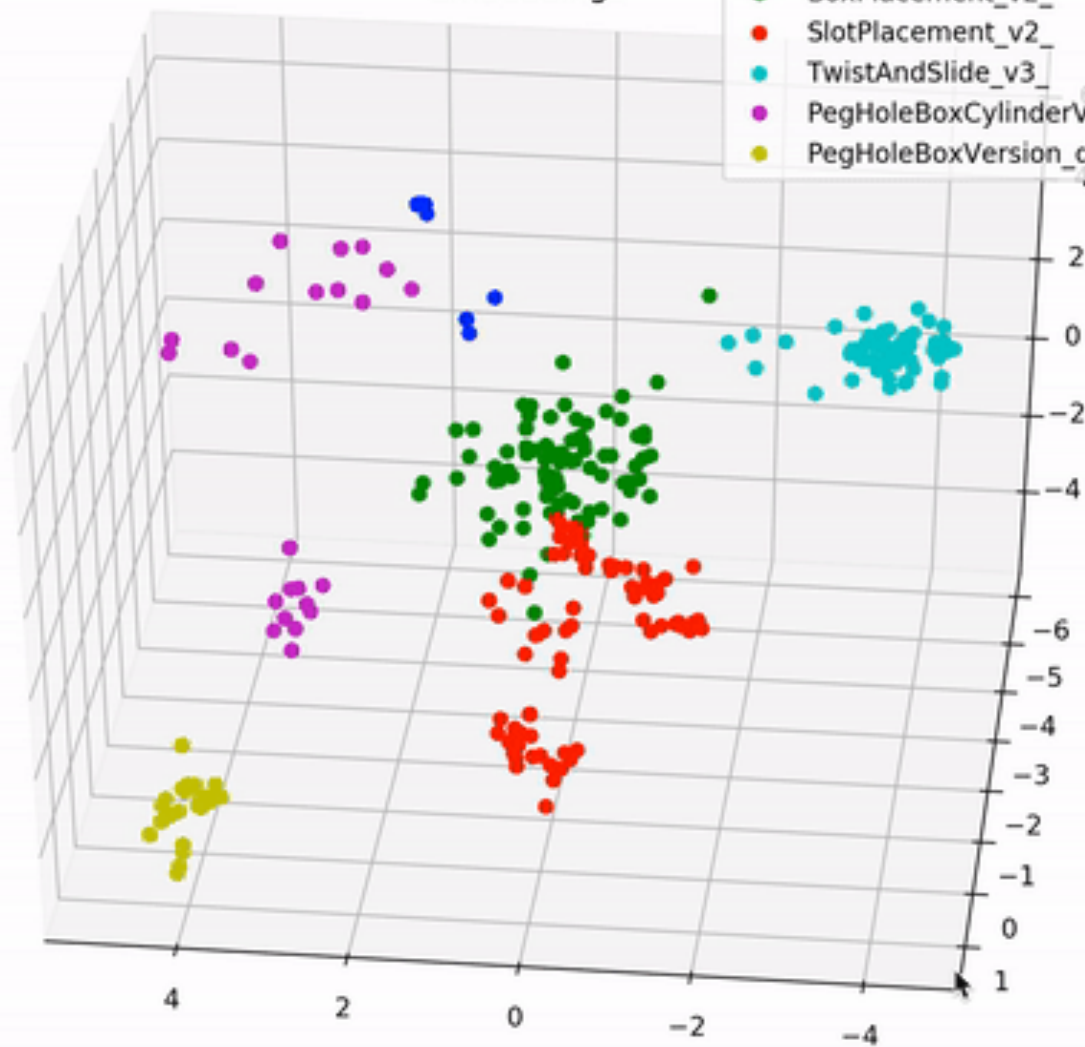
AUTODESK.

RESEARCH

# Recognition of Assembly Features

Embeddings

- BoxKey\_v11\_
- BoxPlacement\_v2\_
- SlotPlacement\_v2\_
- TwistAndSlide\_v3\_
- PegHoleBoxCylinderVersion\_v2\_
- PegHoleBoxVersion\_diff\_tolerance\_v2\_



# Embeddings

Twist

Slot Placement

Box Placement

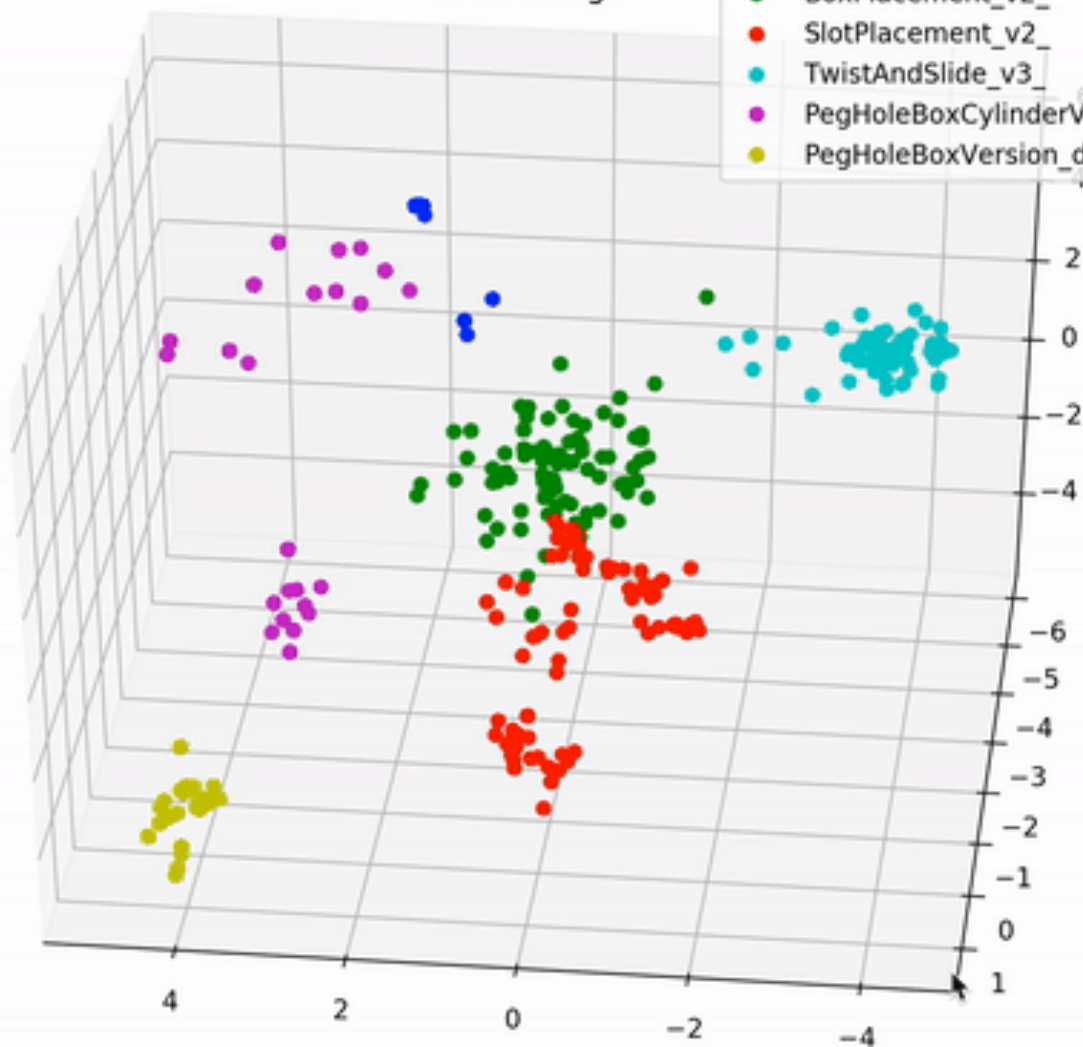
Slide-Twist Placement

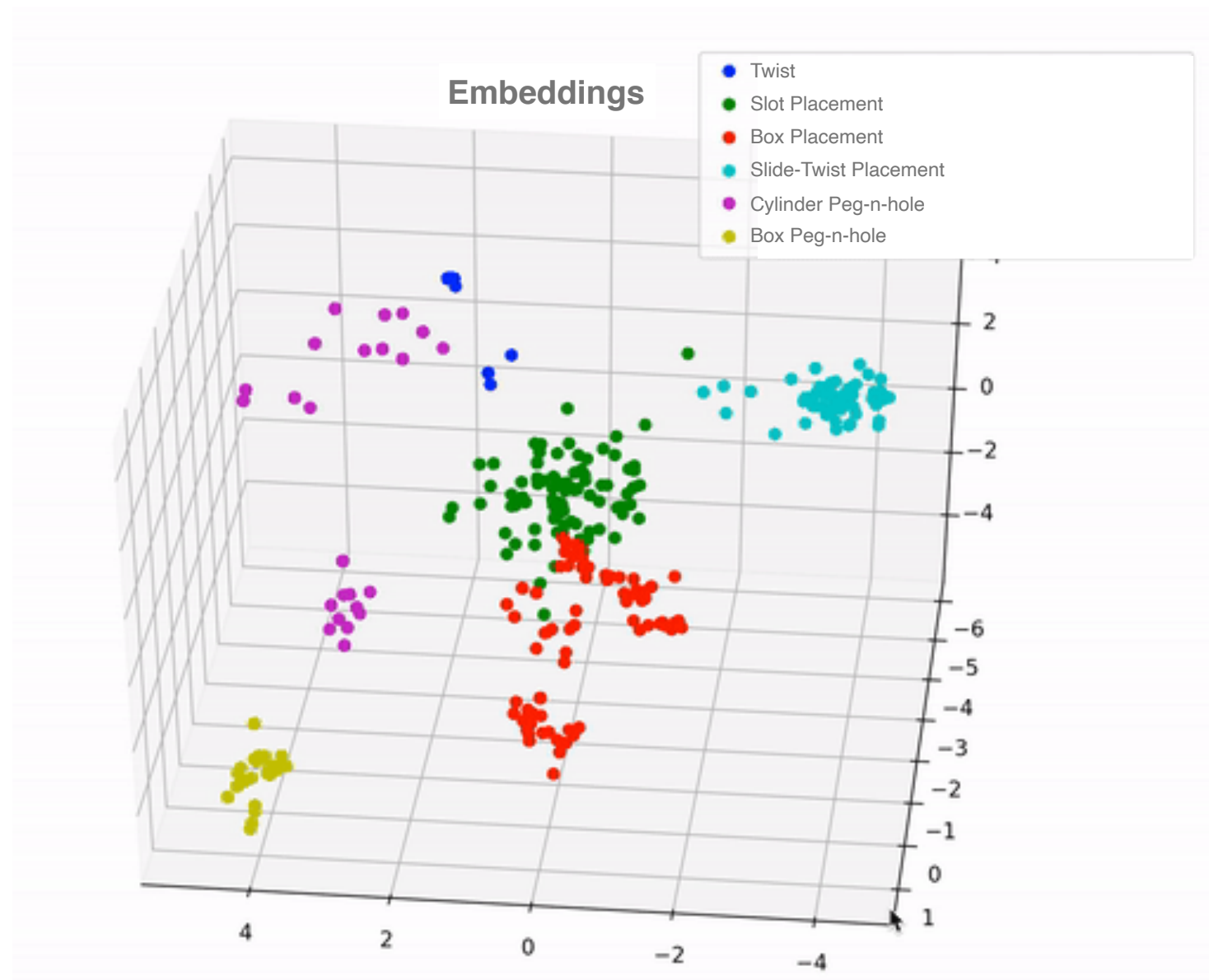
Cylinder Peg-n-hole

Box Peg-n-hole

Embeddings

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Recognition of Assembly Features



# Next Steps

- Use the learned feature mapping for segmentation of an actual assembly operation into primitives
- Experiment with various sequence modelling architectures
- Use the learned knowledge for predicting graspable surfaces for assembly