

Things to Note

- This approach derives from the existing kinematic knowledge to create a new framework for mechanism synthesis
- Solves problems that have had no good theoretical underpinning, such as defect-free generation, conditioning of the input, and contextual concept generation.
- Deep learning was used to learn the meaningful representations of linkage parameters and used in a novel way to enhance the users' design experience.

Next Steps

Data Representation

Image Based Approach

- Consistent data format for all planar mechanisms
- Intuitive approach to apply constraints
- Benefits of Data Bucketing
- Leverage Established Deep Learning Architectures

Architectural

GANs

- Better Reconstruction Quality for Images

Attribute Vectors

- Better Manipulation of Inputs

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Domain

MultiDOF

- Type Synthesis
- Workspace Specification

Spatial Mechanisms

- Scaling the approach in three dimensions