Variational Input

- Changes in input which are <u>insignificant to user</u> but are <u>significant for solver</u>
- Common Approach is to change the input randomly within a tolerance range and hope to get good result
 - Combinatorial Optimization (NP Hard)
- Need for Informed Modifications on Input
 - Requires knowledge about the properties of coupler motions (or paths) of planar linkages.

Need of Generative Model

- Input Conditioning and Imputation requires capturing the underlying pattern
- Learning joint probability distribution of linkage parameters
- Generate Variational Inputs to exploit nonlinear nature of the problem