Architecture of Complex Systems
TA Project Evaluation: Touring Motorcycle

WEEK 4: MODELING WITH DSMs AND MODULARIZATION

Step 1: Decompose the System
Does the submission develop a system decomposition of form shown as a tree structure or indented list as per the example project? Is the decomposition a valid two level down decomposition with a relevant number of 7 +/- 2 elements?

Points: 2
The decomposition is in a two level tree structure with 5 at level 1 and around 5-6 at level 2 except for the Wheels subsystem that has 4 elements. This technically does not meet the 7 +/-2 criteria because of the Wheels subsystem. The hierarchy is clearly visible.

Step 2A: System DSM
Does the submission develop an NxN design structure matrix clearly labeled and arranged in order of decomposition as per the example project?

Points: 2
The DSM is indeed NxN and arranged in the original order of the decomposition. The parts are clearly labeled as well. However, not all interactions are listed and identified.

Step 2B: System DSM
Does the submission cluster elements in the DSM based on their associations? Does the submission include insights based on the clustering? Does the submission include a fresh level 1 decomposition based on the insights?

Points: 3
4 Clusters are identified within the DSM. Components inside the clusters display minimal interaction with those on the outside. A detailed write up is provided with an explanation of the new level one decomposition.

Step 3: Change Propagation

Does the submission identify a list of highly connected components and chain of propagation among the components as per the project template?

Points: 3

Five components are clearly identified. In addition the change chain is provided as well if one of the five components is changed.