

Exploring Shape Variations by 3D-Model Decomposition and Part-based Recombination

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Appendix A: Supplemental results

In this supplemental material additional blends results are shown. (Fig. 1 to Fig. 9). We also present additional matrices with blends for several categories: ships (Fig. 10), planes (Fig. 11), and metal machines (Fig. 12). The topmost row and leftmost column of the matrices contain the input examples.

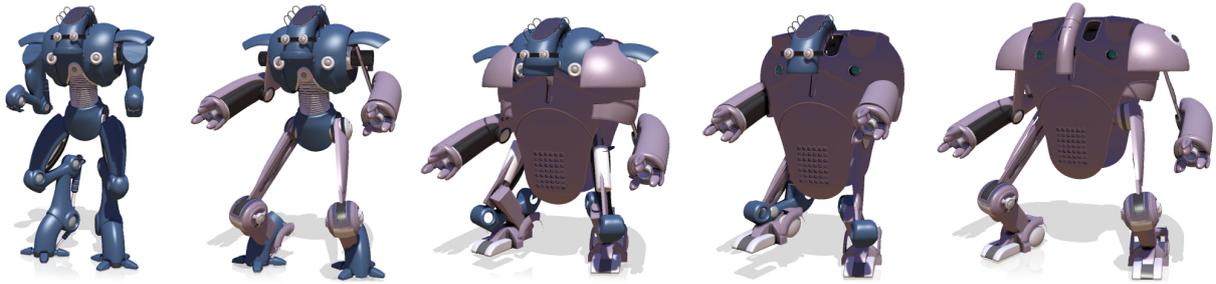


Figure 1: A blend between two robots.



Figure 2: Failure case: In this blend between two cars some parts, such as the side-windows, are not placed correctly because there are too many contact constraints.

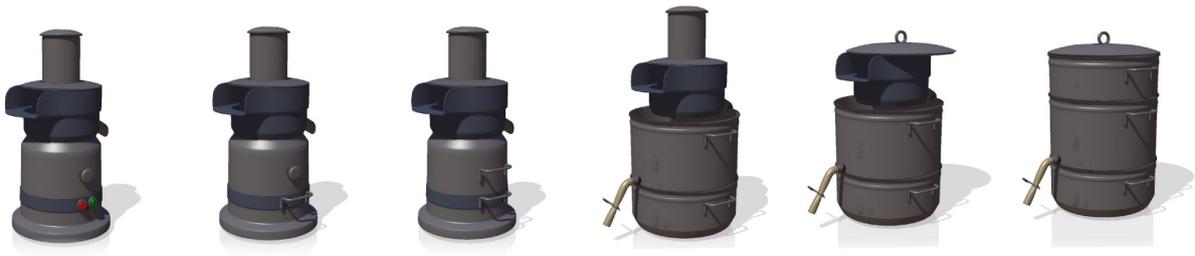


Figure 3: A blend between two juicers.

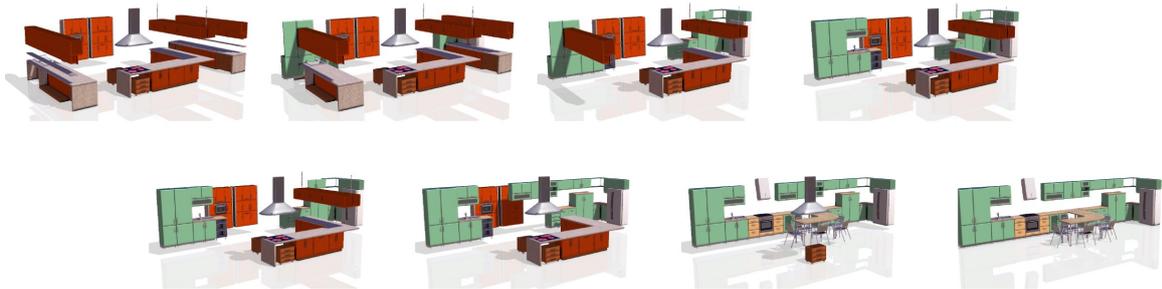


Figure 4: A blend between two kitchen designs.

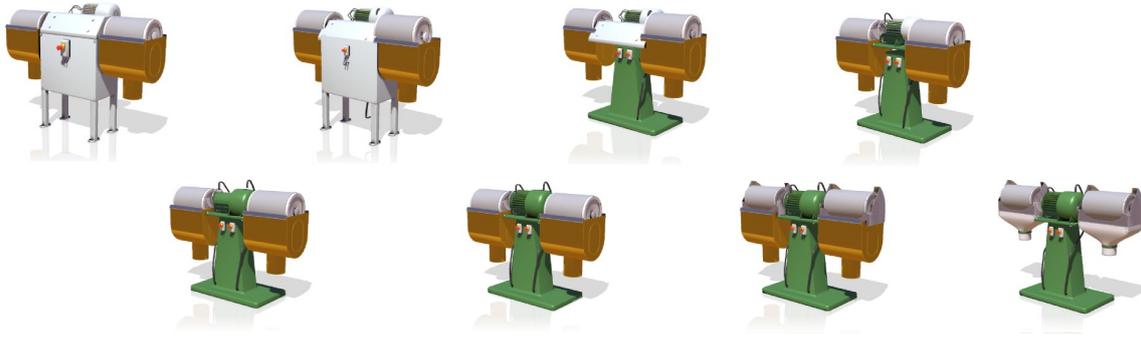


Figure 5: A blend between two metal machines.



Figure 6: A blend between a street sign pole and a telephone pole.



Figure 7: A blend between two barbecue tables.



Figure 8: A blend between two bar stools from Google 3D Warehouse. These models have only very few parts and, thus, there are only two generated intermediate shapes.



Figure 9: A blend between a two lamps from Google 3D Warehouse. These models have only very few parts.



Figure 10: Blend matrix for five shapes from the “ship” category



Figure 11: Blend matrix for five shapes from the “plane” category

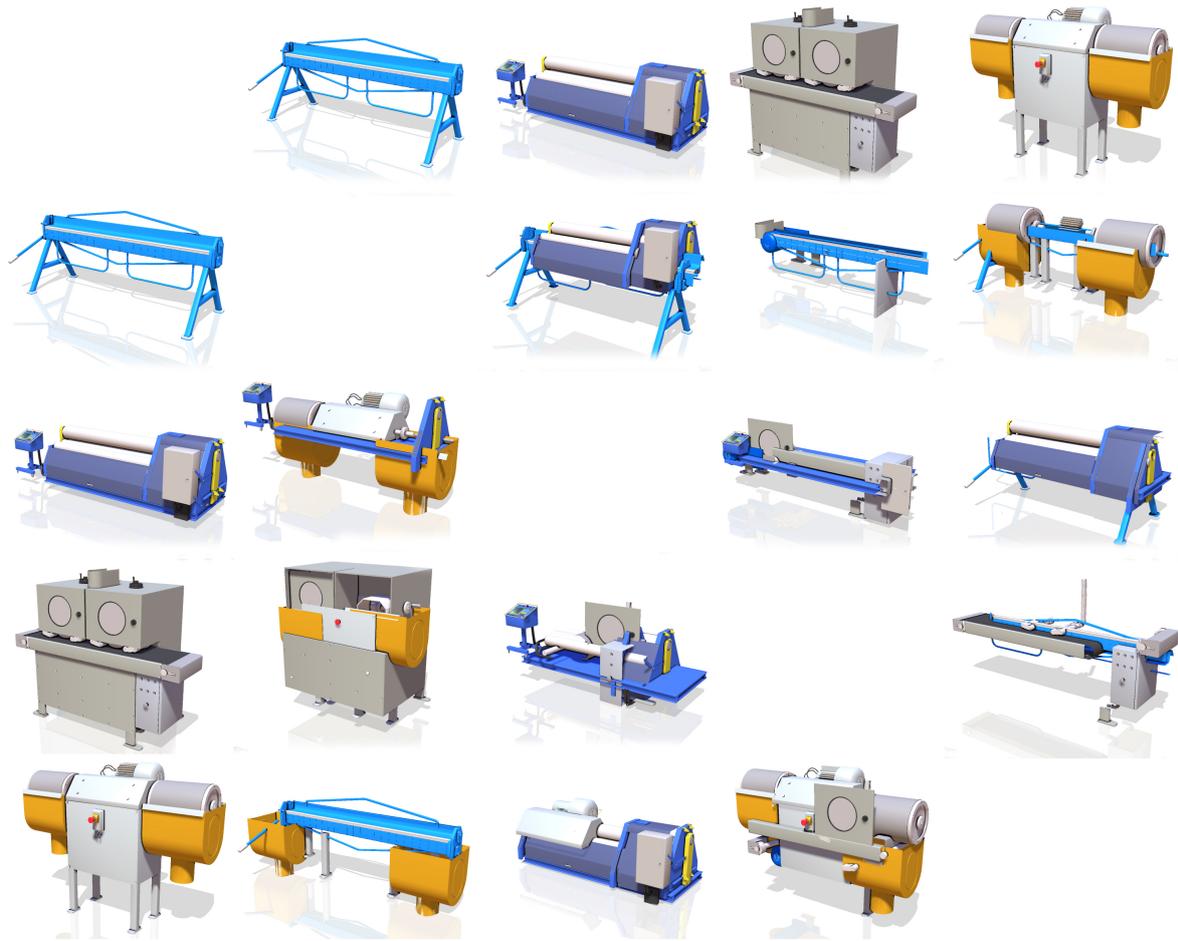


Figure 12: Blend matrix four shapes from the “metal machines” category