Product Design (a.k.a. Product Conceptual Design)

Step 1:
Establish customer needs and technical specifications using the HOQ

Step 2:
Identify the primary function (intent) of the product.

Step 3:
Find related products and dissect (reverse engineer) these products using FAST.

Step 4:
Develop the Function Structure (main function, sub-functions, etc.) for the product.

Step 5:
Generate solution principles (SPs) for each sub-function; organize SPs in a morphological matrix.

Step 6:
Generate 6-10 alternative product concepts by suitably combining the SPs in the MM.

Steps 7, 8:
Develop a set of selection criteria; generate a utility function (UF) to assess the alternatives in Step 6. Use the UF to select 1-2 feasible product concepts for further development.