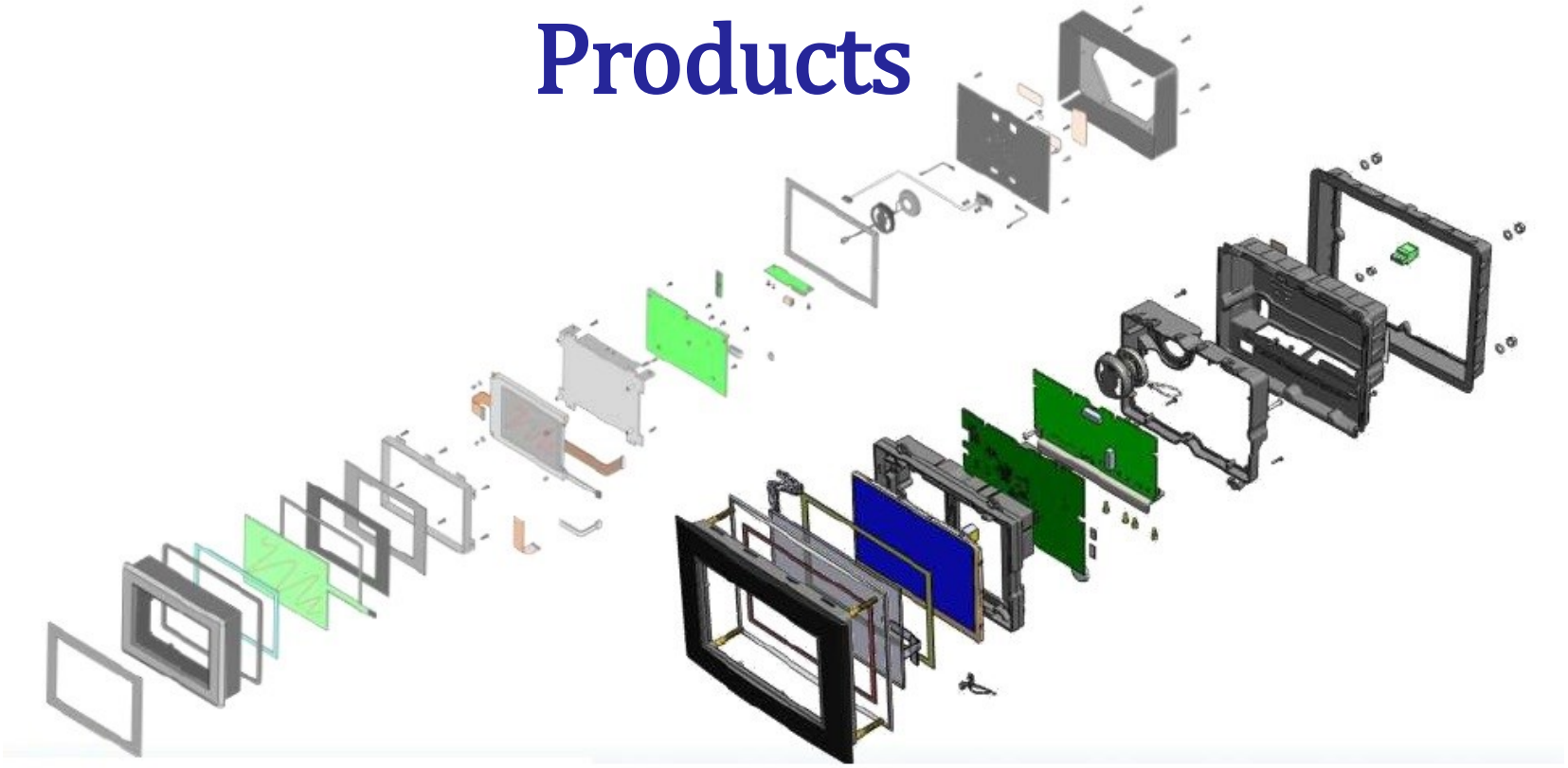
New Product Development
&
Re-Engineering
Products



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THE DEVELOPMENT ITINERARY

Overview

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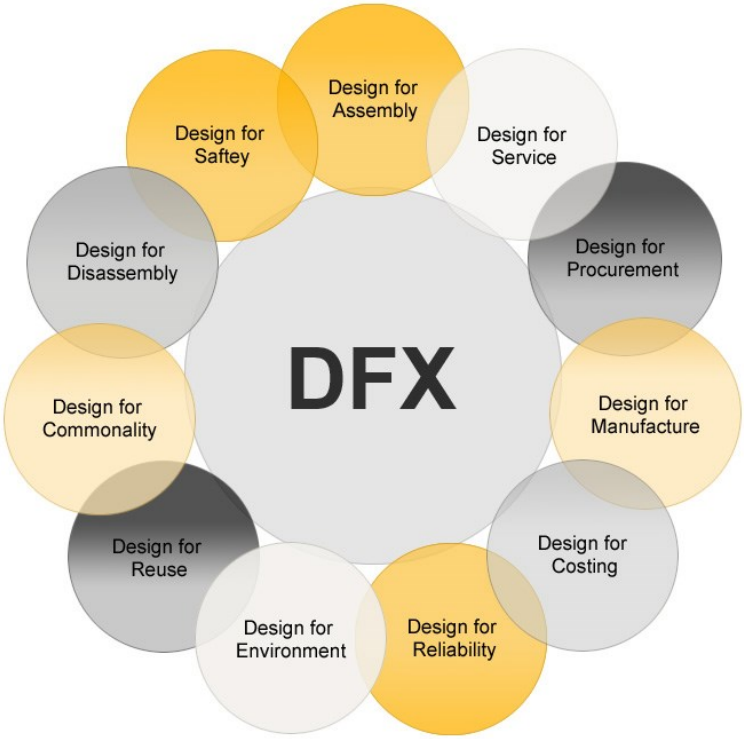
Intended Flowchart of Activity

PHASE 1	TRIAL PROJECT
PHASE 2	Implementation of Phase 1 Analysis to Product

THE DFMA APPROACH



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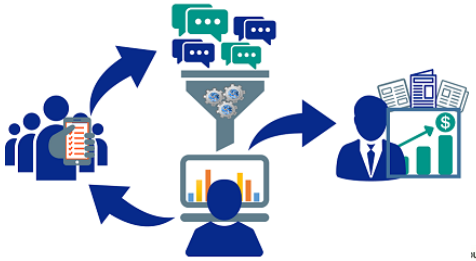
PHASE 1

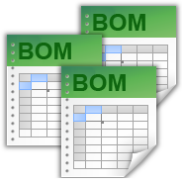
Description of Work

(1) **Identification** of one Product /Assembly subassembly for project

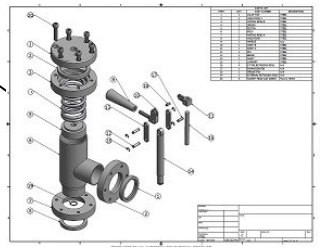


(2) **Data** collection for the project

Specifications



Bill Of Materials



Drawings

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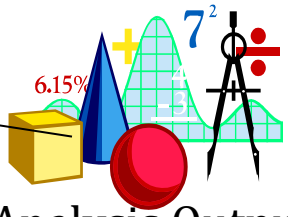
PHASE 1

Description of Work

(3) Data Input to the DFMA software. CLIENT Members can also be involved in the activity

(4) Analysis and Interpretation of the DFMA Results



Analysis Output

Spreadsheets

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PHASE 1

Description of Work

(5) Redesign Options

Leaner Design Suggestions

Reduce part count, **S**implify assembly time and cost, **S**uggestions for alternate materials, fastening methods, etc.

(6) Summary and Reporting

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PHASE 1

Duration

Assembly size	Duration	
	Data Collection	Analysis
15 - 30Parts	@ 4- 6 Days	@10-12 Days
30 - 50Parts	@ 4- 8 Days	@10-18 Days
50 -100Parts	@ 4-10 Days	@14-24 Days

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PHASE 1

RESPONSIBILITY

D-ESPAT (DEPL) will Provide

- DFMA consultant(s)
- DFMA software

CLIENT To Provide

- Consultant Charges
- Interaction member(s) who will assist in collecting the required data for the process
- Participating team from CLIENT . It would be a HANDS-ON training for the participants

Phases of the Innovation Process

Formation of a Cross-Functional team consisting participant from
(1)R&D / Production
(2)Sales & Marketing / Quality

STEP 1

Team Analyses of the assembly structure .
(Acknowledging the different difficulties assembling the present product)

STEP 2

Filling the DFMA Work Sheet - This gives the DFMA team the opportunity to define optimum product,eliminating unnecessary parts/ components

STEP 3

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Phases of the Innovation Process

Arriving to realistic cost estimation of the analyzed product

STEP 4

Defining the problems arising while assembling the product

STEP 5

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PHASE 2

Redesign Activity

(1) **Pursue the Phase 1 Assembly** for Development and Implementation

(2)Exchange Information with other disciplines /teams at CLIENT for determining

A. Redesign Options

B. Redesign Cost and Time

C. Cost Of Implementation

PHASE 2

Redesign Activity

(3) Discussion and Selection

A. Material And Processes

B. Further Part Count Reduction

C. New Design integration in Product Assembly

D. Tooling costs

D. Return on Investment

PHASE 2

Probable Achievement

Assembly size	@ Reductions In Part Count	@COST Savings for CLIENT
15 - 30Parts	@ 15% - 60%	@30% - 50%
30 - 50Parts	@ 30%- 70%	@40% - 65%
50 -100Parts	@ 25%- 75%	@35% - 75%

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PHASE 2

Duration

Assembly size	@ Redesign Duration
15 - 30Parts	@12-18 Days
31 - 50Parts	@20-30 Days
51 -100Parts	@25-45 Days
101 – 200Parts	@30- 60 Days

PHASE 2

COLLABORATION

DEPL will facilitate

- DFMA consultation to explore possible solution to design problems and suggest the same .
- Seek expert advice from our DFMA principles and business partners to achieve feasible and cost effective solutions.
- Assist in validating feasibility of solution obtained
- Interact with CLIENT's Team members , participants & partners (vendors and suppliers) , if CLIENT so wishes ,to derive optimal solution.

PHASE 2

COLLABORATION

CLIENT will facilitate

- Involving department members concerned to validate solutions reached
- Provide their expert advice , comments, suggestions to assist in developing the new design or modifications to the existing component(s).
- Probable suggestions to identify further part count reductions and product simplification.
- Involve members concerned to calculate costing, returns on investment and other aspects involved with implementing the design.

Phases of the Innovation Process

The team will work proposals on how to improve the product design

STEP 6

Getting creative ...to reduce parts And redesign remaining parts.

STEP 7

Rework proposals to ensure product design is able to fulfill your requirements

STEP 8

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Summary

The aim is to assist the CLIENT to improve their product competitiveness in terms of

- Faster Production
- Leaner with Simpler Assembly procedures
- Robust Products which are cheaper to manufacture
- Simplicity in service and maintenance
- Reduced time /cost of New product to market