

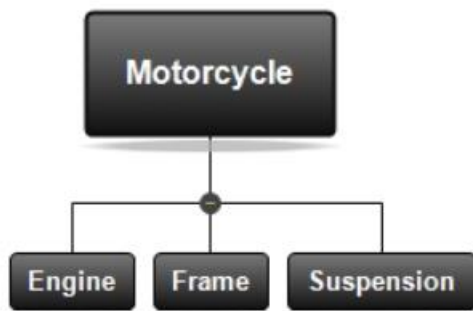
## Product Breakdown Structure

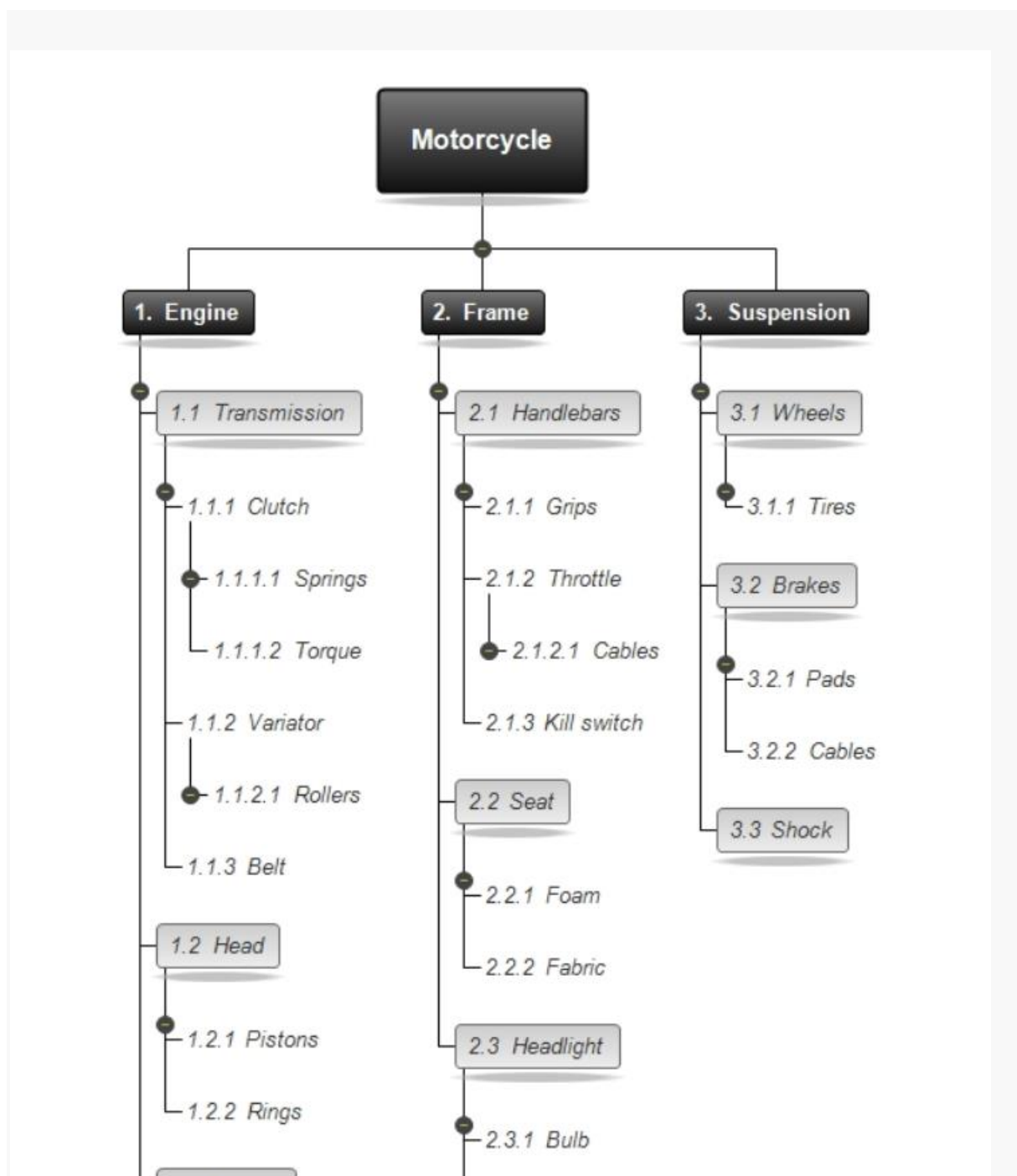
A product breakdown structure is an effective tool that details the physical components of a particular product, or system, under consideration. The formal PBS comes in the form of a hierarchy. It begins with the final product at the top of the hierarchy followed by the sub-categorized elements of the product.

A Product Breakdown Structure (PBS) is a hierarchical structure of things that the project will make or outcomes that it will deliver. It can be thought of as the project “shopping list.”

It decomposes a "Main Project Product" into its constituent parts in the form of a hierarchical structure.

The diagram below illustrates a typical PBS for a simple project.





## Work Breakdown Structure

the Work Breakdown Structure (WBS) is the tool that utilizes this technique and is one of the most important project management documents. It singlehandedly integrates scope, cost and schedule baselines ensuring that project plans are in alignment.

The Project Management Institute (PMI) Project Management Book of Knowledge (PMBOK) defines the Work Breakdown Structure as a

“deliverable oriented hierarchical decomposition of the work to be executed by the project team.” There are two types of WBS: 1) Deliverable-Based and 2) Phase-Based. The most common and preferred approach is the Deliverable-Based approach. The main difference between the two approaches are the Elements identified in the first Level of the WBS.

There is no direct relationship between the structures of the WBS and the PBS.

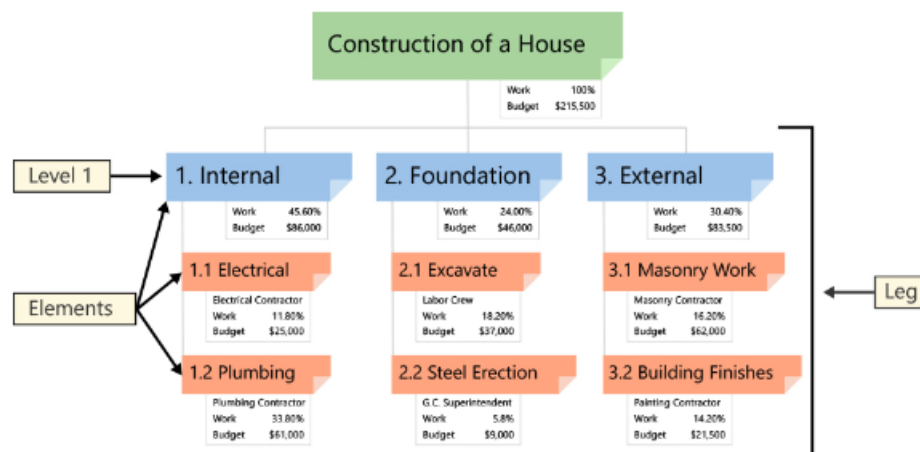


Figure 1 – Deliverable Based Work Breakdown Structure

## How to Make a Work Breakdown Structure

A good Work Breakdown Structure is created using an iterative process by following these steps and meeting these guidelines:

### 1. GATHER CRITICAL DOCUMENTS

- Gather critical project documents.
- Identify content containing project deliverables, such as the Project Charter, Scope Statement and Project Management Plan (PMP) subsidiary plans.

### 2. IDENTIFY KEY TEAM MEMBERS

- Identify the appropriate project team members.
- Analyze the documents and identify the deliverables.

### 3. DEFINE LEVEL 1 ELEMENTS

- Define the Level 1 Elements. Level 1 Elements are summary deliverable descriptions that must capture 100% of the project scope.
- Verify 100% of scope is captured. This requirement is commonly referred to as the [100% Rule](#).

### 4. DECOMPOSE (BREAKDOWN) ELEMENTS

- a. Begin the process of breaking the Level 1 deliverables into unique lower Level deliverables. This “breaking down” technique is called Decomposition.
- b. Continue breaking down the work until the work covered in each Element is managed by a single individual or organization. Ensure that all Elements are mutually exclusive.
- c. Ask the question, would any additional decomposition make the project more manageable? If the answer is “no”, the WBS is done.

#### 5. **CREATE WBS DICTIONARY**

- a. Define the content of the [WBS Dictionary](#). The WBS Dictionary is a narrative description of the work covered in each Element in the WBS. The lowest Level Elements in the WBS are called Work Packages.
- b. Create the WBS Dictionary descriptions at the [Work Package](#) Level with detail enough to ensure that 100% of the project scope is covered. The descriptions should include information such as, boundaries, milestones, risks, owner, costs, etc.

#### 6. **CREATE GANTT CHART SCHEDULE**

- a. Decompose the Work Packages to activities as appropriate.
- b. Export or enter the Work Breakdown Structure into a [Gantt chart](#) for further scheduling and project tracking.

Please refer [What is a Work Breakdown Structure \(WBS\) | Project Management](#) for more info on wbs and pbs

Regards,

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