

Project Management Portfolio





Hello!

*I am **Marwan Shehata***

I am here to tell that I love the teams I work with!

You can find me at [@MarwanShehata](#) 



Summary

- I worked under an agile management environment, where speed and flexibility are the norm.
- Defined project requirements, targets and deadlines.
- Created and analyzed market surveys to gather data and presenting it to the owner.
- Tracked projects plan status.
- Worked with and managed external suppliers, and conducted DFM reviews
- Utilized the best practices in designing custom machinery.
- Designed a proper PDM Workflow that works under the organization's policies while Identifying and implementing efficiency improvements.
- Improving meta-data configurations in PDM.
- Troubleshooting problem files and tasks. Assisting other colleagues in Solidworks/ Solidworks PDM work

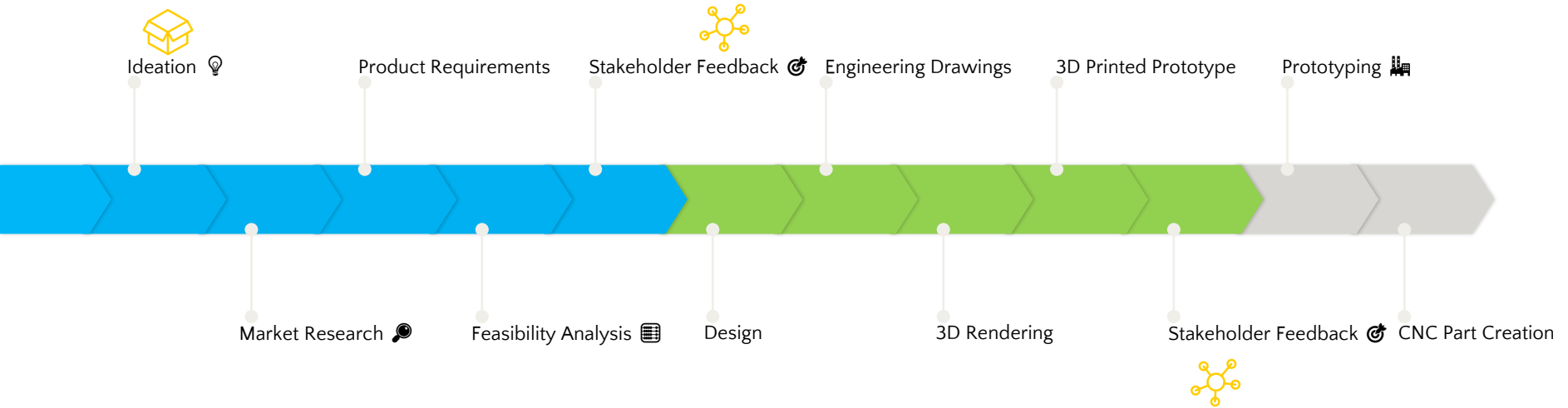
If you want any more details, please, don't hesitate to reach out!

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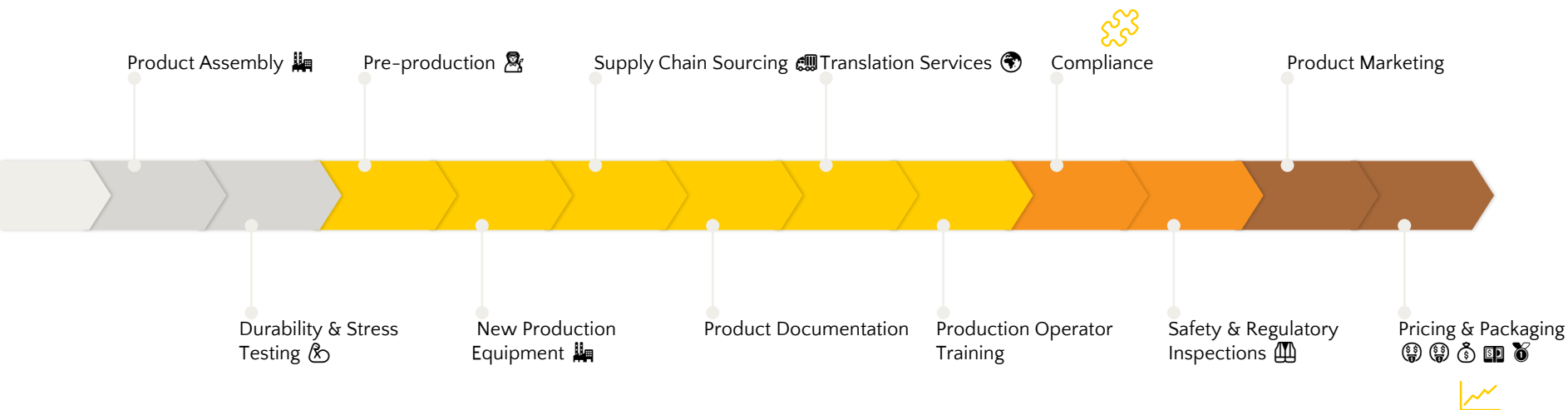


Product Development Process





Product Development Process (Cont'd)





Agile Development Challenges

- ⦿ Due to prototyping and incremental development being slower and resource heavier.
- ⦿ Agility in hardware development is affected by product maturity – in the early concept phases, the ability to make changes is high, while in later stages, it is arduous due to more documentation and set supplier contracts.



Agile Development Challenges (Contd')

Fundamental misunderstanding of agile principles

1

Key issues requiring creative thinking to solve

3

Hardware redesign is done poorly under Waterfall principles

5

Current impediments that can be addressed iteratively over time

2

Less evident modularity in the designs

4

Assembly and durability testing often needs specialized equipment that must also be designed and built

6

*“Learn from yesterday, live for today, hope for tomorrow. The important thing is **not to** stop questioning.”*

Albert Einstein



“



Agile is efficient!

It creates a unique work culture that helps to
increase team morale



Overall mechanical design board

Milling Machine			
To Do	Doing	Ready for Inspection	Done
<div><div>Design</div><div>80%</div><div>Sep 5</div></div> <div>Design ></div> <div><div>Stakeholder Feedback</div><div></div><div>Sep 5</div></div> <div>Prototyping</div> <div>19%</div> <div>Sep 7</div> <div>Prototyping ></div> <div><div>CNC Part Creation</div><div></div><div>Sep 6</div></div> <div>Prototyping ></div> <div><div>Product Assembly</div><div></div><div>Sep 7</div></div> <div>Pre-production</div> <div></div> <div>Jan 19, 23</div> <div>Pre-production ></div> <div><div>New Production Equipment</div><div></div><div>Sep 12</div></div> <div>Pre-production ></div> <div><div>Supply Chain Sourcing</div><div></div><div>Sep 13</div></div> <div>Pre-production ></div> <div><div>Product Documentation</div><div></div><div>Jan 17, 23</div></div> <div>Add a Task</div>	<div>Prototyping ></div> <div><div>Durability & Stress Testing</div><div>25%</div><div>Sep 1</div></div> <div>Design ></div> <div><div>3D Printed Prototype</div><div>75%</div><div>Sep 2</div></div> <div>Add a Task</div>	<div>Add a Task</div>	<div>Ideation ></div> <div><div>Product Requirements</div><div>100%</div><div>Aug 15</div></div> <div>Ideation ></div> <div><div>Stakeholder Feedback</div><div>100%</div><div>Aug 16</div></div> <div>Design ></div> <div><div>3D Rendering</div><div>100%</div><div>Aug 24</div></div> <div>Design ></div> <div><div>Engineering Drawings</div><div>100%</div><div>Aug 22</div></div> <div>Ideation</div> <div>100%</div> <div>Aug 16</div> <div>Ideation ></div> <div><div>Market Research</div><div>100%</div><div>Aug 11</div></div> <div>Ideation ></div> <div><div>Feasibility Analysis</div><div>100%</div><div>Aug 16</div></div> <div>Add a Task</div>

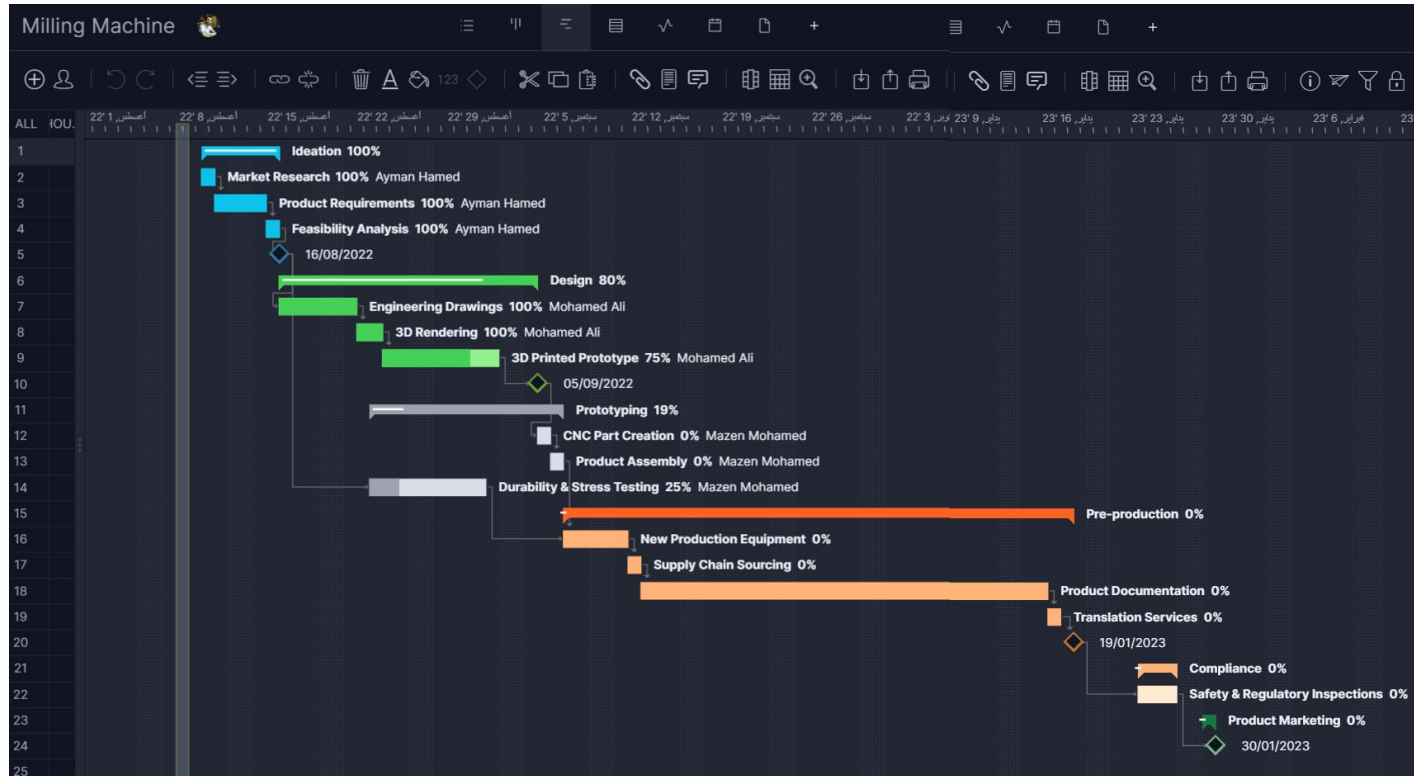


Overall mechanical design board

Milling Machine											
ALL	TASK NAME	DURATION	PLANNED STA...	PLANNED FINISH DATE	PERCENT COMPLETE	PRIORITY	PLANNED HOU...	ASSIGNED			
1	Ideation	4 days	11/08/2022	16/08/2022	100%	Medium	18.5 hours				
2	Market Research	1 day	11/08/2022	11/08/2022	100%	Medium	6 hours	Ayman Hamed			
3	Product Requireme...	2 days	12/08/2022	15/08/2022	100%	Medium	4 hours	Ayman Hamed			
4	Feasibility Analysis	1 day	16/08/2022	16/08/2022	100%	Medium	0.5 hours	Ayman Hamed			
5	Stakeholder Feedba...	1 day	16/08/2022	16/08/2022	100%	Medium	8 hours	Ayman Hamed			
6	Design	14 days	17/08/2022	05/09/2022	80%	Medium	32 hours				
7	Engineering Drawings	4 days	17/08/2022	22/08/2022	100%	Medium	8 hours	Mohamed Ali			
8	3D Rendering	2 days	23/08/2022	24/08/2022	100%	Medium	4 hours	Mohamed Ali			
9	3D Printed Prototype	7 days	25/08/2022	02/09/2022	75%	Medium	12 hours	Mohamed Ali			
10	Stakeholder Feedba...	1 day	05/09/2022	05/09/2022		Medium	8 hours	Mohamed Ali			
11	Prototyping	11 days	24/08/2022	07/09/2022	19%	Medium	16 hours				
12	CNC Part Creation	1 day	06/09/2022	06/09/2022		Medium	4 hours	Mazen Moham			
13	Product Assembly	1 day	07/09/2022	07/09/2022		Medium	4 hours	Mazen Moham			
14	Durability & Stress T...	7 days	24/08/2022	01/09/2022	25%	Medium	8 hours	Mazen Moham			
15	Pre-production	96 days	08/09/2022	19/01/2023	0%	Medium					
16	New Production Eq...	3 days	08/09/2022	12/09/2022		Medium					
17	Supply Chain Sourc...	1 day	13/09/2022	13/09/2022		Medium					
18	Product Documenta...	90 days	14/09/2022	17/01/2023		Medium					
19	Translation Services	1 day	18/01/2023	18/01/2023		Medium					
20	Production Operato...	1 day	19/01/2023	19/01/2023		Medium					
21	Compliance	3 days	25/01/2023	27/01/2023	0%	Medium					
22	Safety & Regulatory...	3 days	25/01/2023	27/01/2023		Medium					
23	Product Marketing	1 day	30/01/2023	30/01/2023	0%	Medium					
24	Pricing & Packaging	1 day	30/01/2023	30/01/2023		Medium					



Gantt chart



“In any given moment we have two options: to step forward into growth or to step back into safety.”

Abraham Maslow

“



PDM Workflow

Designed & implemented different workflows for different scenarios.



Improvements ahead!

I made the design process much easier, along with macros and SolidWorks Task Scheduler.



A glimpse of what I've **achieved**

- Simple yet effective workflow that goes with the company's standards
- Automating P/N changes on drawings in Solidworks and Solidworks PDM
- Manage the SolidWorks Toolbox.



PDM workflow scenario

