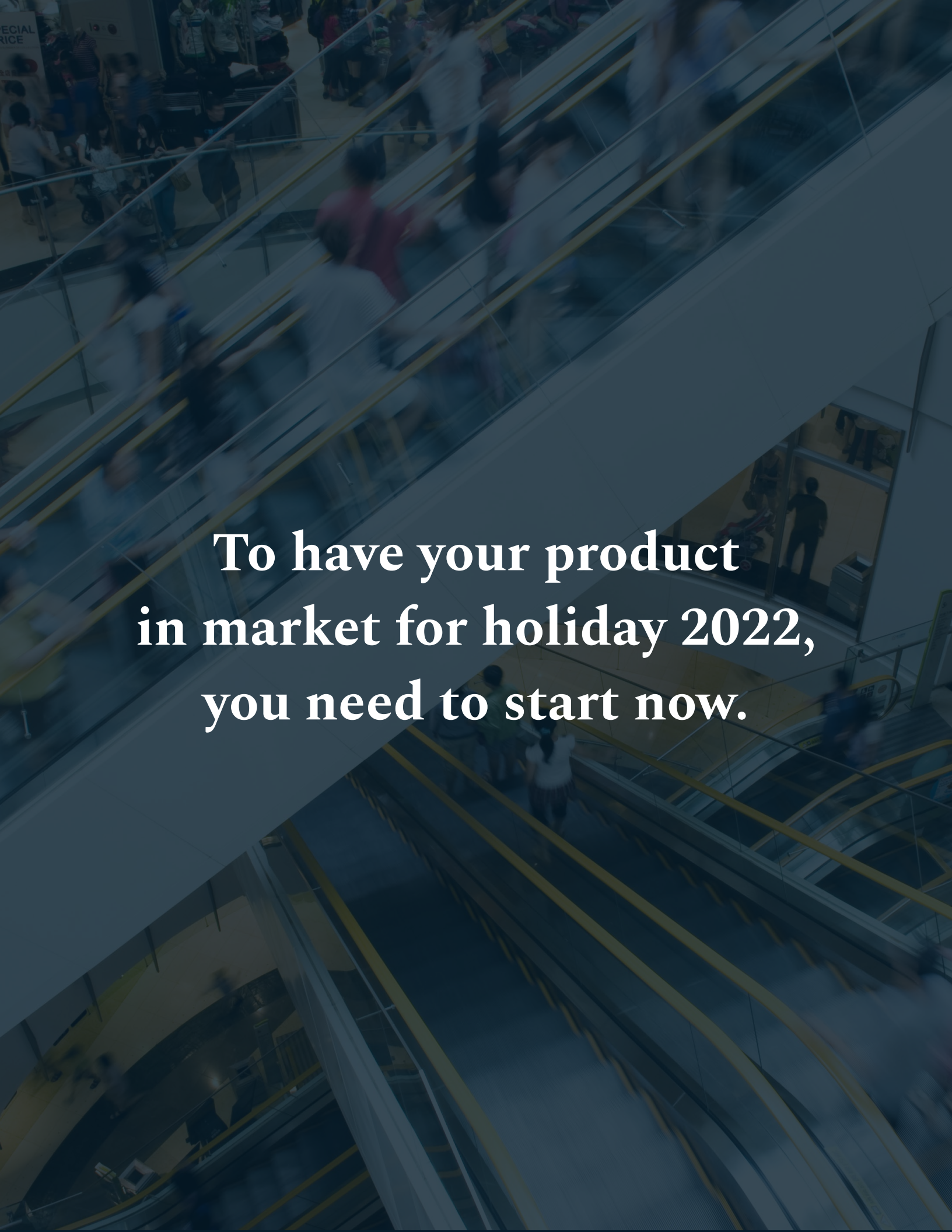
2022 is a go.

DELIVERING HUMAN-CENTRIC DESIGN TO
CAPTURE THE MARKET IN A CHANGED WORLD.

huemen



To have your product in market for holiday 2022, you need to start now.

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The Pandemic Changed Everything... Except the Fundamentals

Companies tested by the pandemic often ask us what's next for product development, consumers and market environments. For Huemen, even in a changed world the answer remains simple: good design creates value. And products with a human-centered design, those that resonate with consumers on an emotional level, will continue to be successful.

While companies work to address markets that have shifted and customer expectations that have evolved, it's important to keep in mind that good design still takes time. To launch a new product the right way, you'll need to embark on a 12-16 month journey. After engaging an experienced design partner like Huemen, you'll dedicate time to a range of efforts, from discovery and ideation to the design process to deploying a strong brand communication strategy in support of your product launch.

The future belongs to those who start building a new generation of products. And that future starts **now**. If you have the 2022 holiday season in your sights, it's imperative to begin the design process right away. Failure to act now can put you at a disadvantage – and, more to the point, impact your bottom line – as competitors race to meet renewed consumer demand.

Recognize Inflection Points and Innovate to Survive Them

Undoubtedly, 2020 and 2021 will go down in business history as two of the most complicated leadership and management years in history. Leaders had to pivot almost every aspect of their business within a matter of weeks while managing resources – employees, above all – with new constraints and concerns.

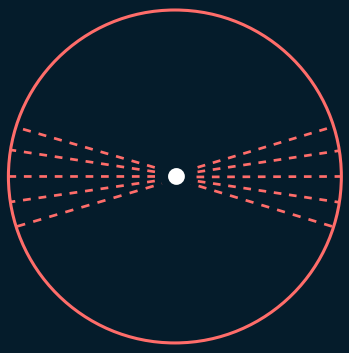
At the same time, Gen Z entered the market as noteworthy consumers with diverse values, skills, attitudes and motivations. As digital natives, they have their own expectations and want those expectations met. Technology is important, but only if it adds value or enhances their experience.

The COVID-19 crisis and generational value shift will continue to create strategic inflection points in companies for years to come. Anticipating change and identifying different ways your employees, potential customers and other stakeholders may be reacting to the post-pandemic world will be critical to your business success.

These fundamental shifts require a fresh approach and the awareness that you are currently at an inflection point that can make or break your business growth over the next two years. Partnering with the right industry experts and crafting seamless digital experiences will help you uncover a competitive edge. The time is ripe to rethink your product development and your go-to-market approach.

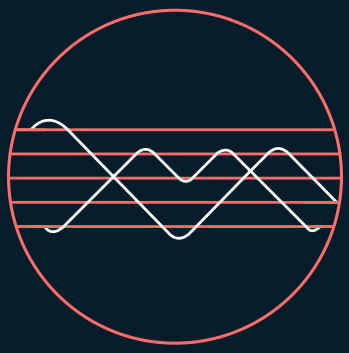
Three Phases to Successfully Launch a New Product in 2022

START → DELIVERY



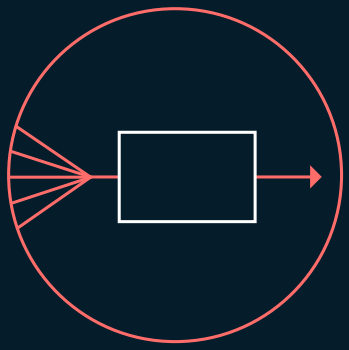
PHASE 1: DESIGN

Decode how trends and challenges impact your manufacturing. Design for new customer segmentations, changing markets and evolving customer expectations.



PHASE 2: DEFINE

Be mindful that millennials and Gen Z have become major segments in the market. Define product concepts which can adapt to rapidly changing technology – and develop prototypes and evaluate manufacturability.



PHASE 3: DELIVER

Align teams to deliver human-centric, compelling brand experiences. Refine design and engineering and implement a range of proven manufacturing, testing and marketing approaches.

These are the three steps – or phases – Huemen follows to design and launch a new product. While many design agencies employ a similar phased process, each firm's individual approach to the phases is what makes that agency unique – and ultimately determines the value they provide the client. What's more, each phase takes time to complete thoroughly and successfully, which explains the need for urgency in starting the process.

Phase 1: Design

> ***"The path to designing a great product is a little like falling in love. You start with the getting-to-know-you phase, where you brainstorm and explore. Then comes the honeymoon period, where you test assumptions and try things out. And finally there's the commitment phase, where hopefully you fall in love with what you've discovered."***
>
> Damian Mackiewicz, VP of Design at Huemen

Identify Problems. Explore All Possible Solutions. Create Usable Products and Experiences.

The crucial first stage of developing a product is design research. It includes clearly defining the problem and finding market opportunities. To smartly integrate the needs of your potential customers with technology and business requirements.

An in-detailed study of existing and potential customers, impact of COVID disruption and path to recovery and emerging trends will help the development teams to pinpoint:

- The question(s) to answer or problem(s) to solve.
- The needs and values of the proposed solution fulfils.
- Actions that developers can take to achieve the product development goals.

Applying Design Thinking Focused on End-to-End Product Development

Step 1: Thinking about user experience as a whole and how the user's goals relate to the goals of the business; **creating realistic representations,** user scenarios and personas of target consumers and design accordingly.

Step 2: Defining primary, secondary, tertiary and accidental user goals and **prioritizing use cases** of the system.

Step 3: Utilizing several methods including brainstorming, researching and benchmarking to **generate actual concepts**, followed by assessment of newly generated concepts and building a physical prototype with the aim of testing the design.

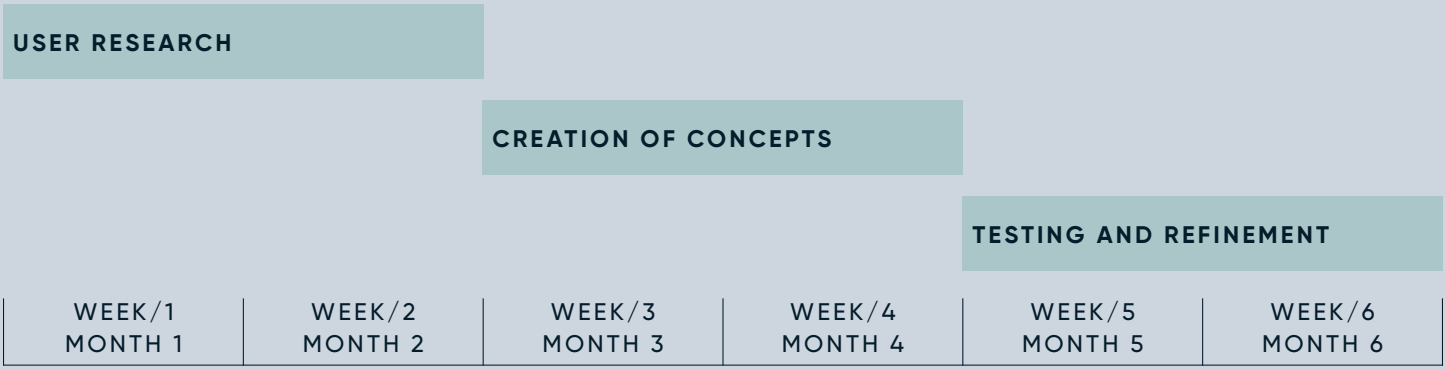
Step 4: Implementing rapid prototyping to create a visual working product of a concept. Building **prototypes to test assumptions**, to see what is strong and what needs more work, further refining the concept.

Step 5: Testing the prototype with real people and **gathering real user feedback.** This usability testing provides insights to make improvements, avoid financial missteps and further refine the product concept.

Step 6: Outlining how the final product will look, feel and behave. Selecting the material and surface finish as it will directly impact functionality and tooling cost. Essentially, finalizing **Color, Material and Finish** (CMF) and aligning it with expectations of end use will influence the final product's functional and perceived value.

Duration

Anywhere from six weeks to six months.



We break this phase into three distinct steps. Ideally all three are of the same duration, but the more time you spend in each, the greater the investment to uncover the problem, the user and ultimately the solution. Whether it is architecture or advertising, digital or physical products, this is the same across all designs.

USER RESEARCH

Focuses on defining the questions, understanding target customers and the market. In this phase we will define user scenarios and personas and determine the ideal technologies, under what circumstances for who and why.

CREATION OF CONCEPTS

Focuses on defining the problem as a human-centered problem statement. Employing various techniques, we create the concepts, prototypes and tests to identify all possible solutions to a problem. It is not linear nor a direct path and is often difficult, but it allows for the breathing and creativity required.

TESTING AND REFINEMENT

Focuses on revisiting the problem statement and making sure that the end solution is resolving the problem. Honing the design concept, we make refinements to derive a deep understanding of the product and its users. We take the time to work through all the details and ensure a cohesive design solution.

"There is no failure in the Design phase, only stops and calibrations to a destination or solution. The time needed in this phase is an investment to succeed. Ignoring it may set the remainder of the program in a misguided direction."

Christian Schluender, VP and GM of Global Design at Huemen

Phase 2: Define

Understanding the final product's look and feel; and what tasks with what tools it will solve.

Once the design is confirmed, this phase delves deeper into the technical details of the product, optimizing it for manufacturability, functionality and cost.

Working on the product design based on three primary components: appearance, functionality and quality, design engineers make the product more tangible. They create product drafts and designs, while navigating plenty of obstacles to:

- Transform concepts into reality, blending product design and software engineering.
- Solve focused problems with all possible combinations and features.
- Create new products or variants with functional product iterations.

Implementing Product Realization Concepts in Design

Step 1: Considering and evaluating **all essential business and technical requirements,** and outlining a product as ready for sustainable manufacturing.

Step 2: Supporting initial product builds through different developmental build cycles. And, **architecting technical solutions** into manufacture-ready products.

Step 3: Utilizing market and user insights to **set an overall innovation strategy,** establishing solid technical directions and refining product features.

Step 4: Demonstrating the **feasibility of technical directions** and fitting each component of the product with greater certainty of overall success.

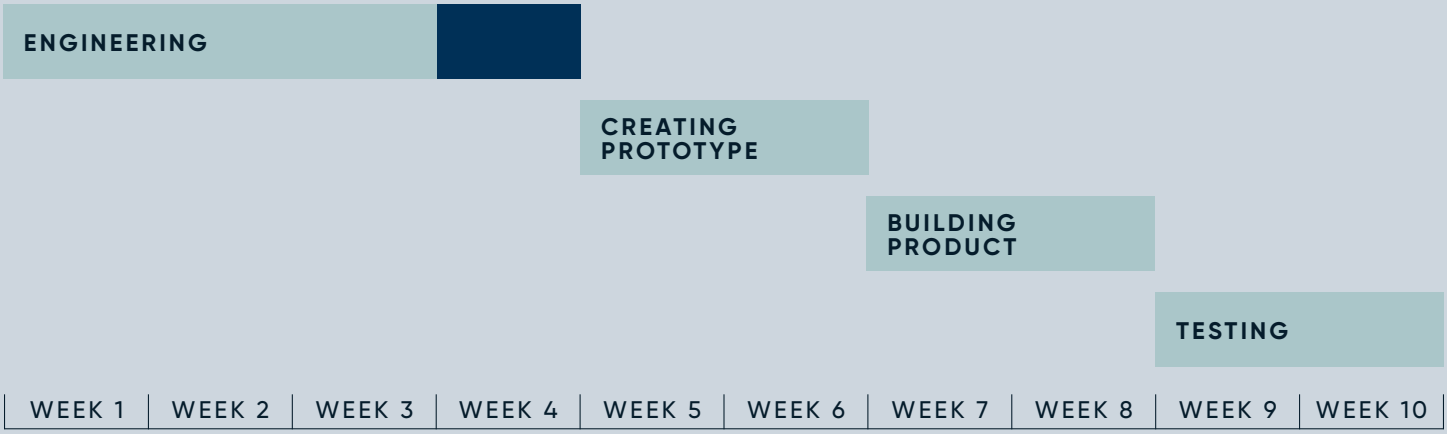
Step 5: Finding **the right balance** between technology feasibility, user desirability and business viability. Examining the product throughout its life cycle to assess product functionality, components against requirements, risks and initial cost of goods.

Step 6: Assembling assets, components and design systems in multiple ways to **select the one that works best** for the final product. Progressively adding functionality with iterative builds. And, applying a continuous testing, improvement, retesting and feedback loop to arrive at the final product.

To ensure the manufacturability of the design and minimize the complexity of manufacturing operations, Design for Manufacturing (DFM) is initiated; regardless of who is manufacturing the products – Original Design Manufacturer (ODM), Contract Manufacturer (CM) or Original Equipment Manufacturer (OEM).

Duration

Anywhere from 10 to 12 weeks.



This phase of exploring, defining and architecting takes approximately 12 weeks or 3 months. This is rather consistent across most programs and does not offer a lot of slack in the schedule. Here we combine the knowledge of design, engineering and manufacturing to create functional products.

The prototypes we create provide us with the ability to explore design alternatives, test theories and confirm product performance before the design is finalized. If the prototype fails to pass the test, then an iteration process is initiated, where engineers re-design, re-build and re-test. After multiple iterations, one successful prototype is developed as a mock-up for full-scale manufacturing.

"Often companies lean on existing technologies and processes to reduce time. But this limits design to rebranding or Color, Material, Finish (CMF) change. Investing time to define the design engineering will undoubtedly result in relevant, functional products and processes."

Christian Schluender, VP and GM of Global Design at Huemen

Phase 3: Deliver

Creating a realistic model of a product experience and evaluating its behavior.

This phase entails the creation of the actual product, based on design deliverables and branding. Followed by a commercial feasibility assessment to determine whether the product would generate sufficient return on investment.

Before building the complete product, teams work in a series of sprints. Each sprint is:

- Targeted to meet specific requirements and a single user story.
- Launched in small releases to gather user feedback and fix bugs.
- Gradually adding more functionality and value to the product over time.

Bringing a Product Vision with a Well-Defined Purpose to Life

Step 1: Determining the **feasibility of different aspects** of the product, bringing it closer to reality.

Step 2: Designing for Manufacturability (DFM) and **preparing the product for production**. Choosing the best manufacturing method and materials to effectively meet end user and business needs.

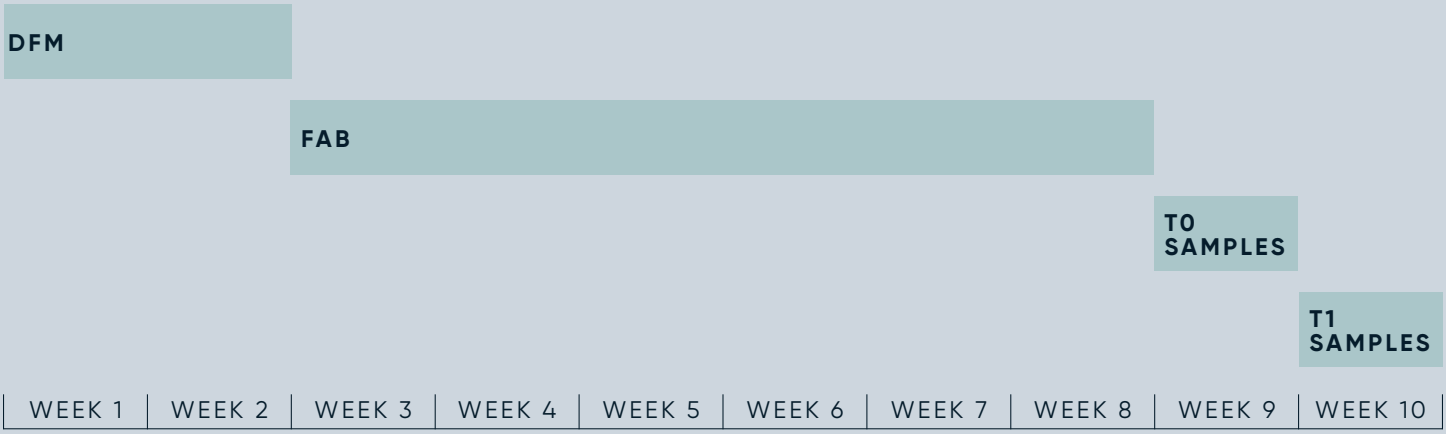
Step 3: Drafting blueprints and utilizing Computer-Aided Design (CAD) to **develop, modify and optimize the product design.**

Step 4: Creating and **testing an off-tool sample** to check if the first-off components and systems meet design intent.

Step 5: Understanding the manufacturing steps and **completing the first assemblies** for final quality approval. Incorporating feedback and **establishing production line capabilities** for continuous manufacturing.

Duration

Anywhere from six to 10 weeks.

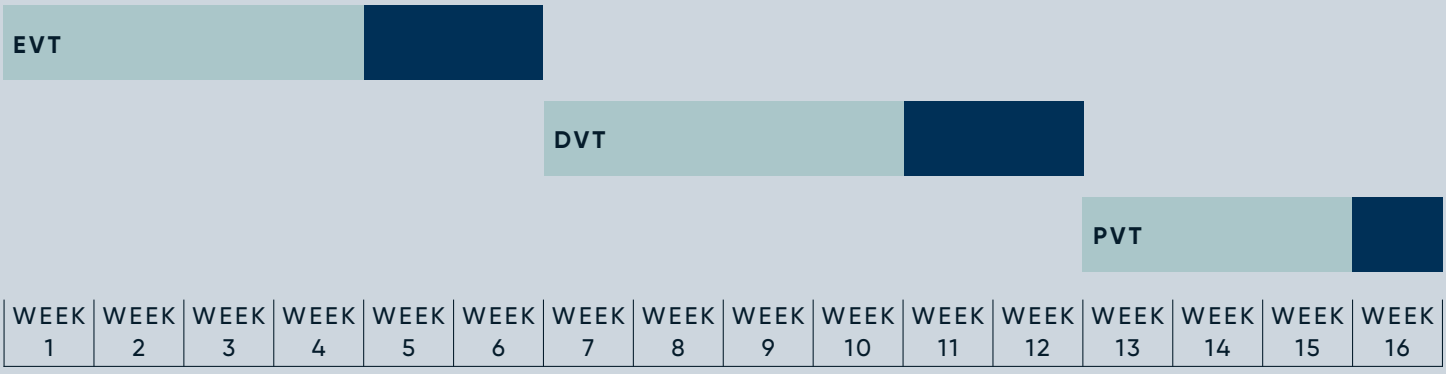


DFM: DESIGN FOR MANUFACTURING

Effective tooling takes anywhere between 6-10 weeks. It ensures that the final product functions properly, extending the product life cycle and resulting in a higher quality product. In our experience, product delays are primarily caused by mismanaged schedules.

There are multiple ways to manufacture and assemble a product, but by utilizing two weeks to apply DFM principles throughout the development process, one rest assured that the product is optimized for both performance and manufacturing cost.

After sufficient testing of prototypes have been done, integrated design work by engineers well acquainted with the anticipated fabrication process is carried out. Finally, T0 (first off tool) and T1 (second off tool) samples will be presented to a target customer for review.



The core of any schedule contains the fundamental hardware build phases: EVT (Engineering Validation Test), Design Verification Test (DVT) and Production Validation Testing (PVT). These different stages: EVT, DVT and PVT are found to minimize risks, errors and design flaws before mass production.

- In the EVT phase of 4-6 weeks, work-like prototypes are built, tested and validated in the development environment.
- 4-6 weeks of DVT ensures products meet cosmetic and environmental requirements. It focuses on building and testing functional units, perfecting tools and techniques.
- PVT is considered to be the last build, intended to be sold to customers after passing all tests. It spans for 3-4 weeks, focusing on building and scaling functional units off the production line.

Unlike designing software, the hardware define phase is longer, comprising production code, production front and back end. The EVT, DVT and PVT phase acts like stages of debugging and maintaining code quality control.

Note: In the physical product world, there is an endless need to develop and ship new products in time for key market windows such as Black Friday or Christmas. Without solid plans companies risk shipping units with quality issues, experience chargebacks, costly recalls and product delays.

12–16 Months: The Time Needed to Launch a New Product the Right Way

> ***"If you wish to launch a NEW product in the next 12-16 months, now is the time to get started."***
>
> Christian Schluender, VP and GM of Global Design at Huemen

Even though every product is different, there are similar stages to follow. The Design, Define and Deliver model acts as a guide, providing structure and enhancing impact. To take your product from concept to ship within 12-16 months, you will also need a solid brand communication strategy, establishing a coherent brand perception.

Companies need to shift from conservative cost management and move toward democratizing their brands. Collaborating with customers will help grow the bottom line and offer a competitive advantage.

We are seeing an uptick in research and design work across three of our core areas of expertise – Mobility, Consumer Products and Digital Solution Design.

Examples:

- A mobility client targeting the resurgence of commuting and personal travel
- A retail software solution enabling augmented reality at home and in retail like never before – from consideration to purchase through to ownership of their products.

The Huemen Way to Avoid Pitfalls on the Road to Market

Next-gen products are not built in the future, they are being built right now.

We cannot emphasize this enough. Starting on a design program now will put the end product in your customers' hands middle of next year, ideal for the 2022 holiday season. Missing this opportunity will mean financial losses by missing the window.

When you are looking at launching a product before the next financial year begins, having the right approach, tools and support is critical. Building products catering to millennials and Gen Z is not about only using the latest technologies, but incorporating a host of strategic changes, uncovering your road forward.

Partnering with Huemen, you can design innovative and industry-changing products:

- **Define the future:** Unlock value by building real, tangible products with game-changing vision.
- **Build human-centered products:** Leverage a human-centered design process to provide optimum user experiences, effortless interaction and business benefits.
- **Go to market with confidence:** Make an immediate impact with our proven approach.
- **Bring brands to life:** Leverage meaningful design and ensure that the product feels like an extension of the person using it.

Our Philosophy

Huemen weaves human-centered design into everything we do, from the fabric of our process to our teams and ultimately the solutions we create.

As leaders in human-centric product development, designing for excellence is simply what we do. We understand the digital innovation that is exploding at the interface between people and the digital world. And we aim to deliver product design solutions that are innovative, practical and successful.

Avoid the 'Ship It and Update Later' and ODM Traps

Unlike software which can be built and updated even after market release, rushing a mediocre product to market is a recipe for failure. Customers will hate it, and that negative perception can carry through to your brand.

Working with an Original Design Manufacturer (ODM) will shorten the design to shipping timeframe. However, this is only possible as the ODM will adjust an existing solution to align with your asks. This results in an ODM-driven solution to your customers' needs and not a new OEM or CM solution to your customers' needs.

Huemen will work with your development teams, bringing in our human-centered design experience to create innovative products that include marketability, usability and brand development.

IF YOU'RE READY TO BUILD SOMETHING AMAZING, HUEMEN CAN BRING IT TO LIFE

Regardless of where you are in your journey, from ideation to creation, we can help you turn your product idea into a commercial reality. If you start today, you can have a game-changing product ready to sell in 2022. Let's get started.

TALK TO HUEMEN

huemen

Huemen Design is a leading global design agency that delivers meaningful, holistic, and human-centric experiences to give clients a competitive advantage. Huemen is a 200+ global team of the world's greatest problem solvers, strategists, thinkers, researchers and designers. Working as a thought leader and client partner, Huemen serves three key markets: Mobility, Consumer Products, and Digital Transformation Services. Based in New York City with six global anchor studios, Huemen leads and delivers world-class design research, multi-discipline product design and brand communications design for a broad range of clients, from startups to Fortune 500 companies.

Contact: hello@huemen.design.com