



# A brief introduction.

Welcome to **IDofThings**, a Kochi (India) - based **Industrial and Product Design studio** led by a group of Industrial Designers & Engineers.

Founded in January 2020. The studio operates as an extension of our client's **research and development** for new concepts and self-initiated experimentation, as well as offering design concepts, product engineering, prototyping and manufacturing to clients from start ups to multinational organizations.

IDofThings is a close-knit team of **highly productive** and experienced **multi disciplinary** team members. We are able to combine the expertise of a commercial design practice with the innovative and experimental attitude of a smaller innovation studio.

At IDofThings we work across a vast variety of project areas and respond to different requirements and conditions. Depending on individual assignments, IDofThings has on hand a pool of specialist collaborators including **Industrial Designers, Mechanical Engineers, Hardware & Software Engineers** available to produce an ideal combination for each project.



# Brands associated with us.

We build long lasting relationships by helping our clients to accelerate their development, Our commitment is to deliver world class solutions that push the boundaries of possibility is always the same.





# What we do.

Good design addresses problems and needs by uncovering insights through in-depth research. This phase includes contextual inquiry, user interviews, workshops, and feasibility studies on technology and materials. It helps identify key pain points and opportunities, guiding the development of informed, human-centered design solutions and fostering innovation.

In the concept phase, we rapidly generate diverse ideas based on our understanding of the problem and research insights. We define a project vision aligned with client values and goals. This phase involves brainstorming, sketching, and prototyping, ensuring innovative solutions that meet both user needs and business objectives.

The design process follows a logical sequence, starting with exploring a wide range of ideas and options. It moves back and forth between human factors and technical requirements, refining concepts. Ultimately, it produces a final design optimized for production, while addressing the needs of the intended end user.

A preferred concept is refined through iterative development, using available tools to create multiple design iterations. This stage focuses on functional details like fitment, tolerance, and component specifications. Prototypes are used to test and gain insights, which inform further design refinements based on the learnings from each iteration.

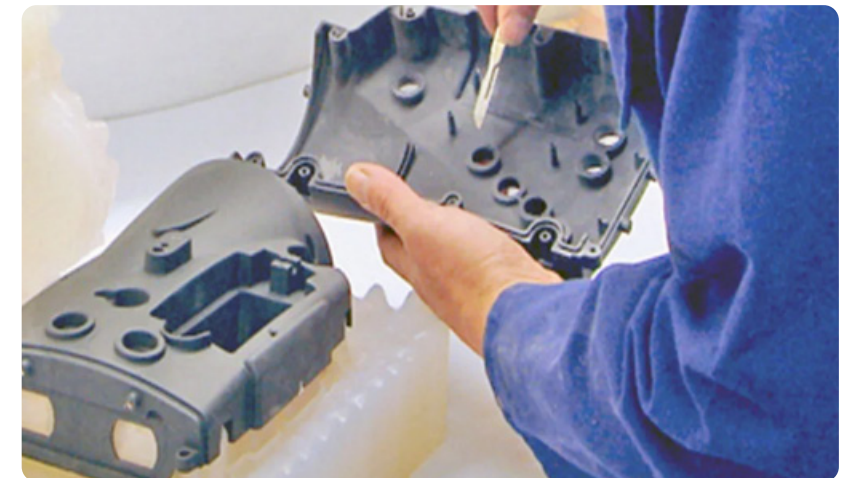
## RESEARCH & DISCOVERY



## DESIGN & ENGINEERING



## IDEATION & EXPLORATION



## TESTING & REFINEMENTS





Service Offering

# Industrial Design.

IDofThings provides expert industrial design services, focusing on creating functional, aesthetically pleasing, and user-centric products. Our team combines creativity with technical expertise to deliver innovative solutions that meet both market demands and client specifications. From concept development to detailed design, we ensure every product is optimized for performance, manufacturability, and sustainability, helping businesses bring their visions to life with precision and style.

## Research & Analysis

- Design Research  
Benchmarking  
Trend Analysis
- Opportunity Mapping  
Human Factors  
Usability Study



## Concept Development & Visualization

- Concept  
Sketching/Styling  
3D CAD Concept  
Modelling
- Hi-Res Rendering  
CMF Visualization  
Product Animations



## Packaging & Documentation

- Consumer  
Packaging Design  
3D Printed  
Mockups
- Labels & Graphics  
IP Drawings &  
Documentation



# Mechanical Engineering.

IDofThings offers comprehensive mechanical engineering services, specializing in designing and developing robust, high-performance mechanical systems. Our team applies advanced engineering principles to optimize product functionality, durability, and efficiency. From prototyping to full-scale production, we provide end-to-end support, ensuring that every mechanical design is precise, cost-effective, and aligned with industry standards. We work closely with clients to deliver solutions that meet their specific needs, making us a trusted partner in the mechanical design and engineering process.

## Modeling & Design

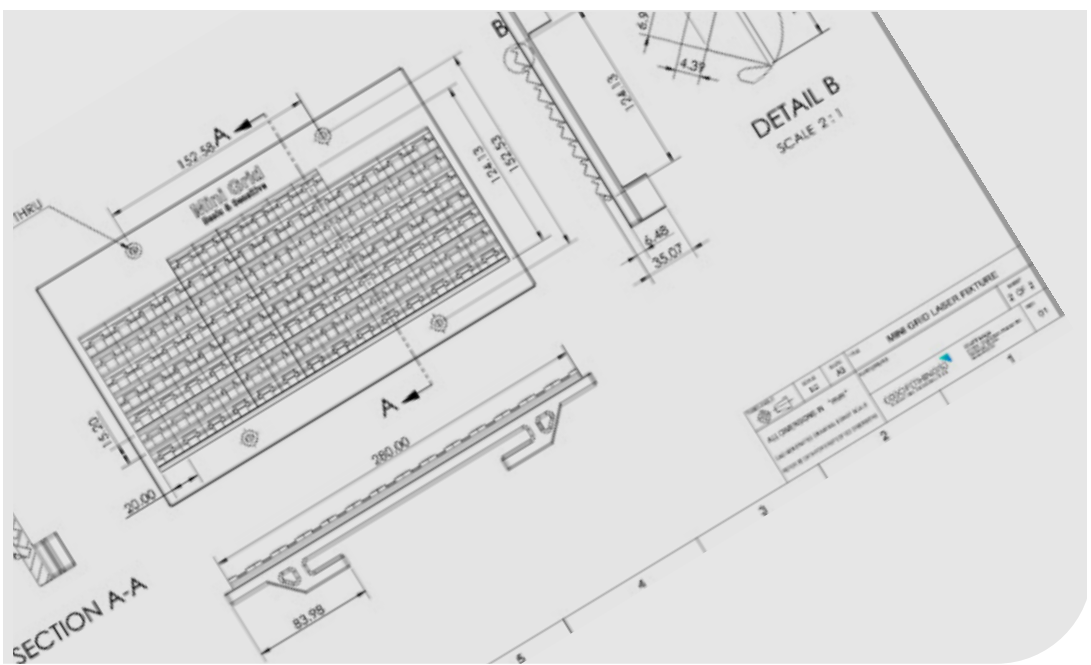
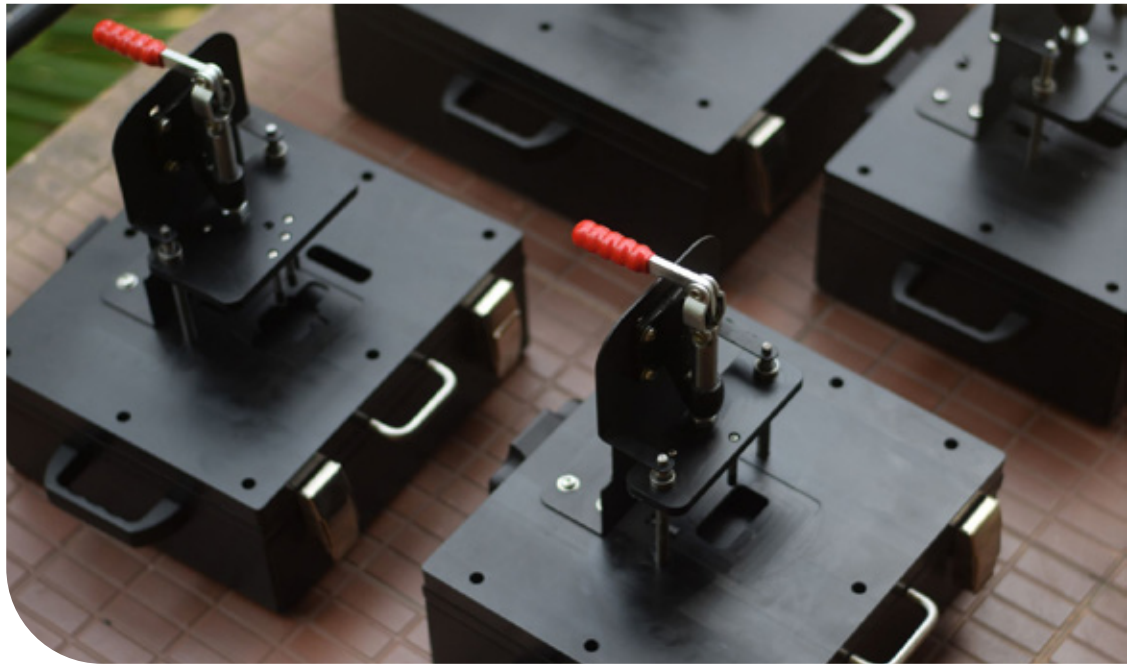
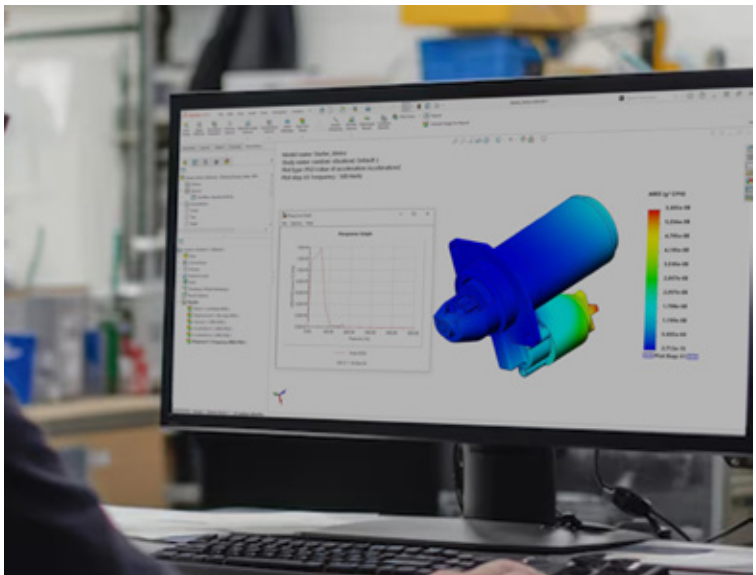
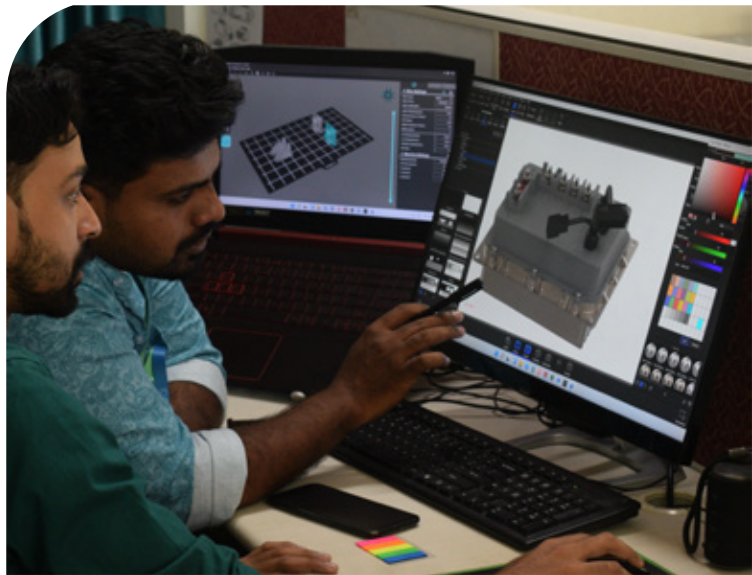
- |                         |                        |
|-------------------------|------------------------|
| Parametric 3D Modelling | Plastic Part Design    |
| Assembly Modelling      | Sheetmetal Part Design |
|                         | Casting Part Design    |

## Analysis & Engineering

- |                     |                              |
|---------------------|------------------------------|
| Reverse Engineering | Structural & Stress Analysis |
| Value Engineering   | Detailed Engineering Design  |
| Thermal Management  | Tolerance Analysis           |

## Process & Documentation

- |                  |                          |
|------------------|--------------------------|
| CAD Conversion   | Jigs & Fixture Design    |
| 2D Drafting      | Design for Manufacturing |
| Mechanism Design | ECO Management           |





# Product Engineering.

We provide end-to-end product engineering services, encompassing everything from concept design and development to hardware engineering and PCB design. Our expertise spans embedded engineering, electronics enclosure design, product packaging, and testing for compliance. We also offer maintenance, re-engineering, and supply chain management support, ensuring seamless production and obsolescence management. With a focus on delivering high-quality prototypes, low-volume PCB assembly, and comprehensive technical documentation, we help bring innovative products to life efficiently and effectively.

## Design & Engineering

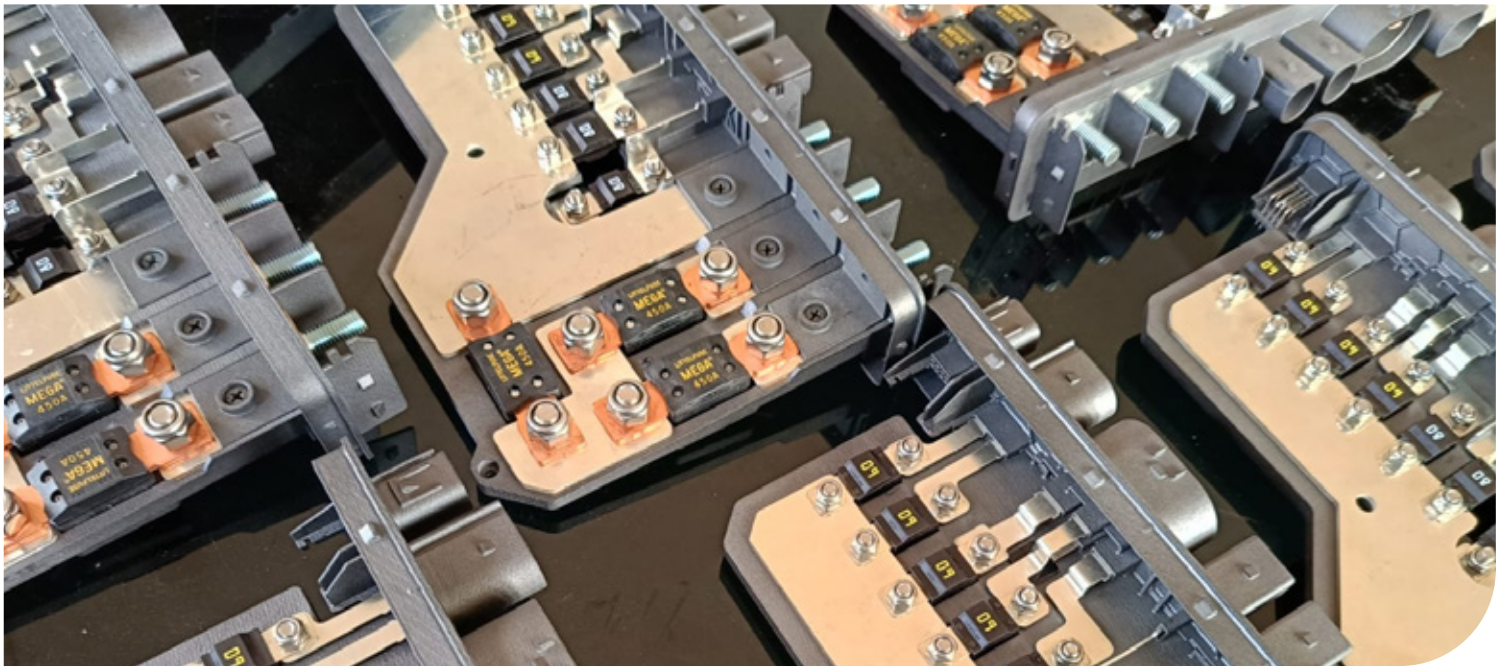
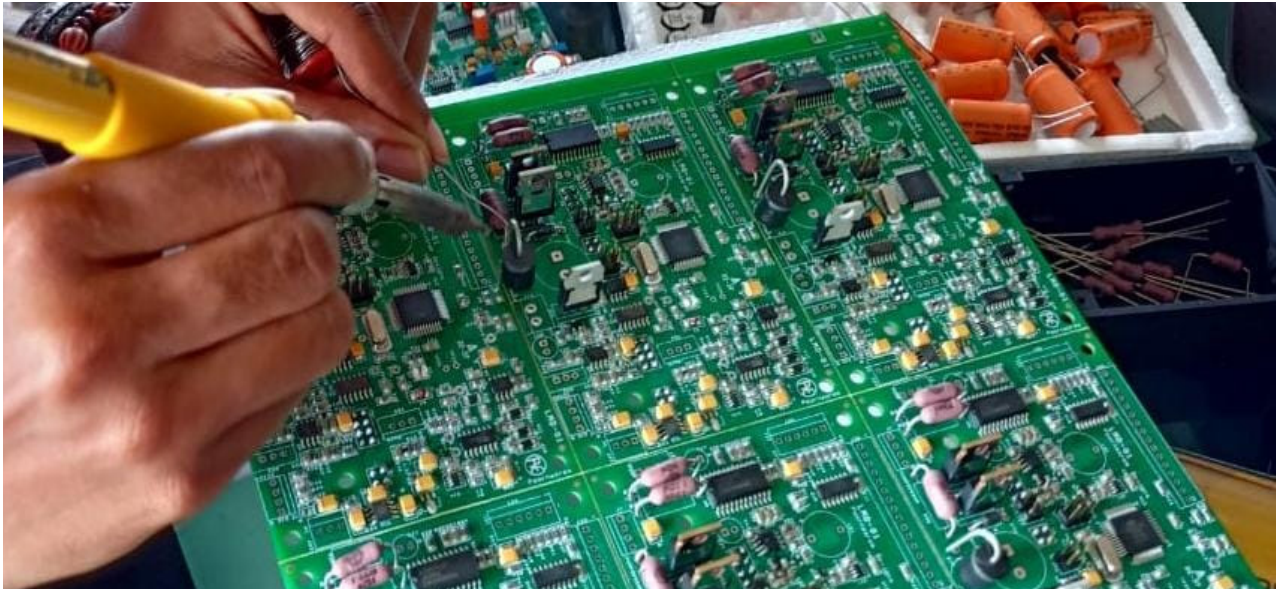
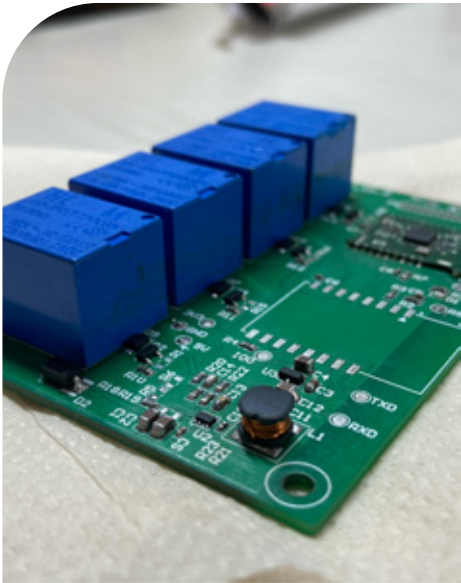
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|------------------------------|----------------------|
| Conceptualization            | Engineering          |
| Product Design & Development | PCB Design           |
| Hardware                     | Embedded Engineering |

## Testing & Maintenance

- |                              |                       |
|------------------------------|-----------------------|
| Design for Compliance        | Maintenance & Support |
| Testing & Validation Support | Re-Engineering        |
|                              | VA/VE                 |

## Supply Chain & Production

- |                         |                         |
|-------------------------|-------------------------|
| Supply Chain Management | Technical Documentation |
| Obsolescence Management | Prototype Development   |
|                         | Low Volume PCB          |





# Prototyping.

Inspired by our cohorts' requests, we now offer 3D printing services, specializing in FDM and DLP methods with advanced printers like Snapmaker Original, Creality K1 Max, Bambulab P1S, and Elegoo Orange Storm Giga. We collaborate closely with a skilled manufacturing team, ensuring a seamless transition from design to production. This enables us to deliver precision-engineered, high-quality products tailored to our clients' needs with efficiency, speed, and technical accuracy.

## FDM Competency

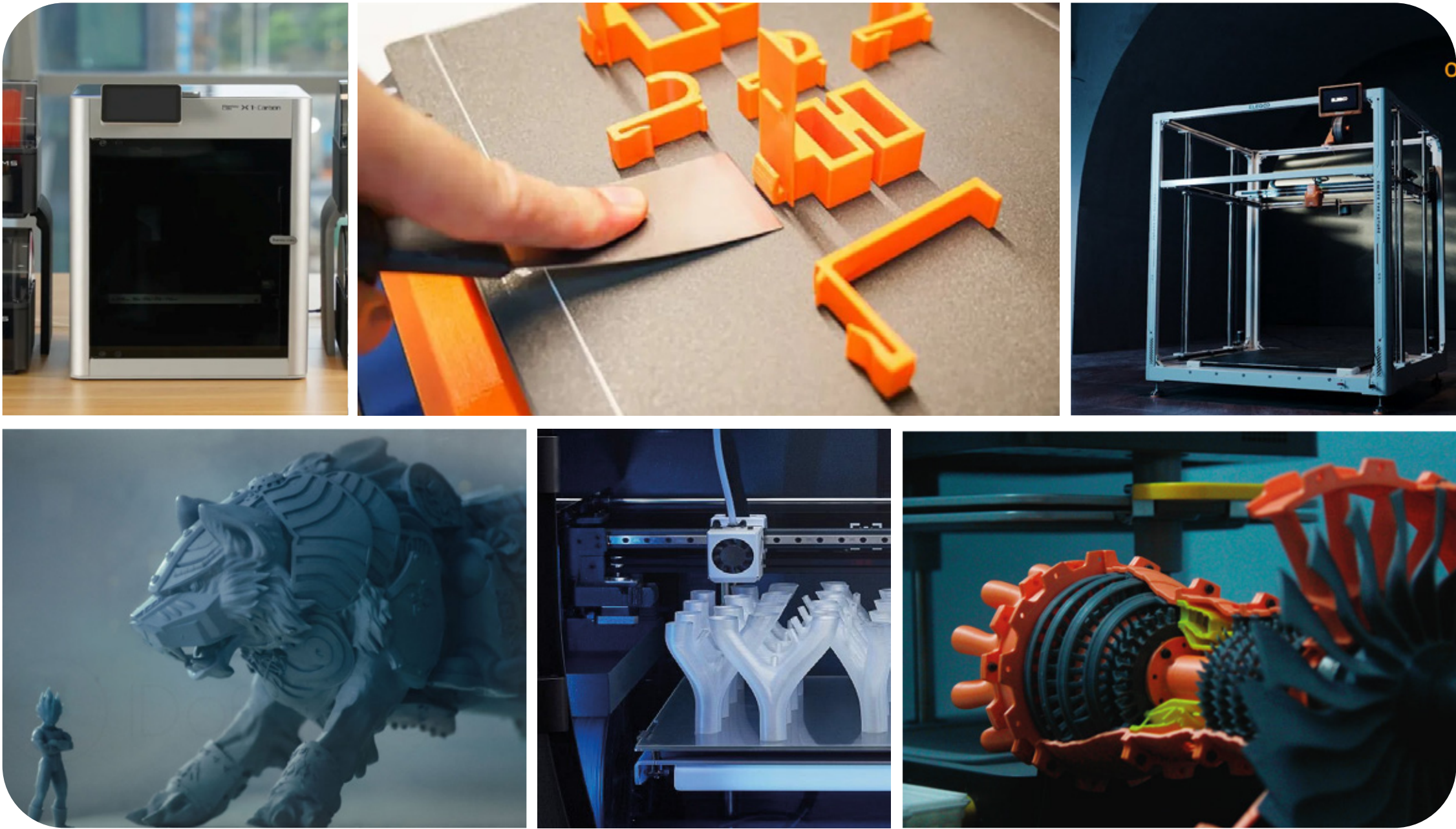
Industrial Grade Printing Quality  
10+ Machines Available  
Build Volume: 800 X 800 X 1000mm  
Materials: PLA, ABS, TPU, CF, PETG, etc.

## DLP/SLA Competency

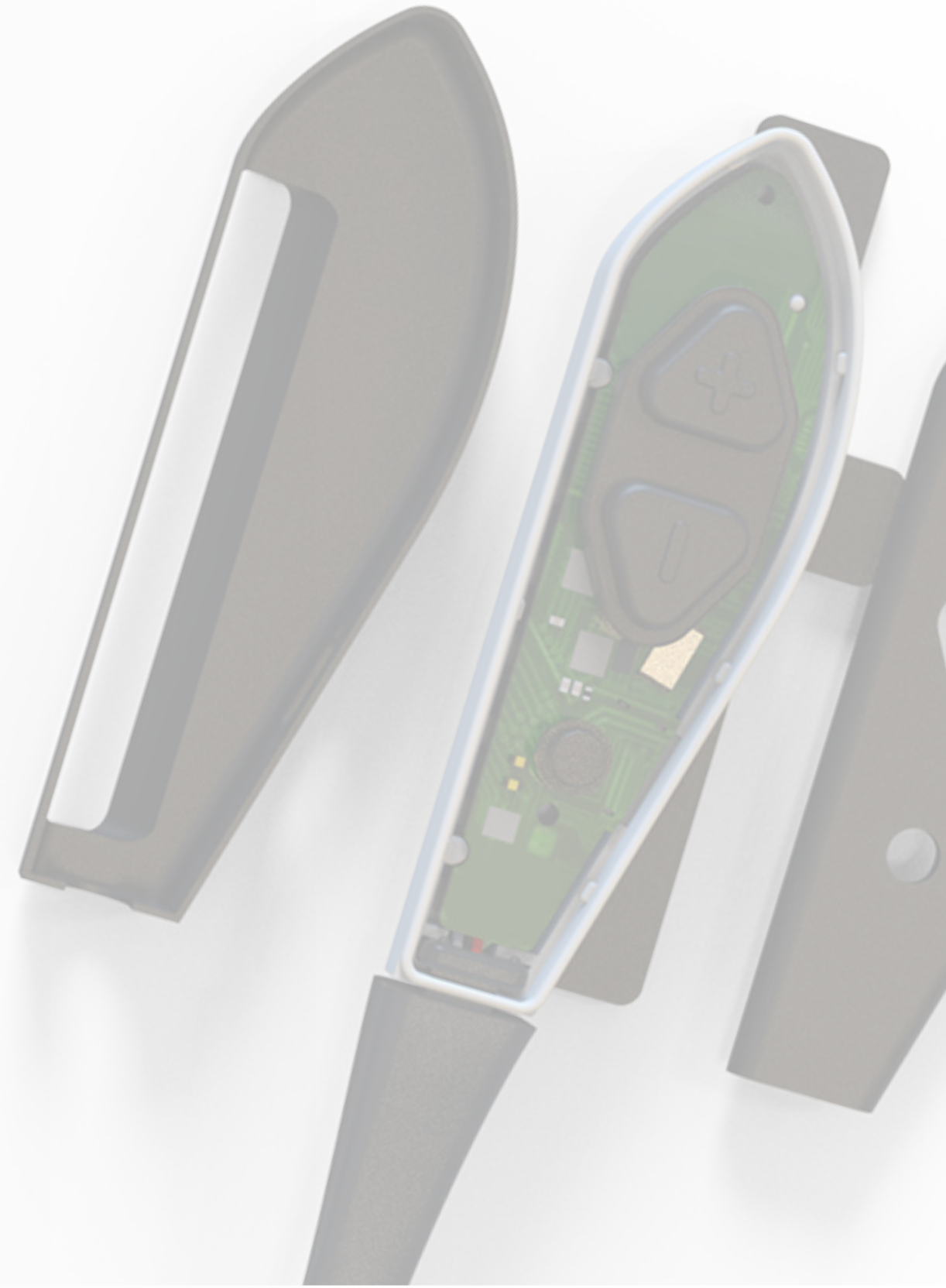
Industrial Grade Printing Quality  
8+ Machines Available  
Build Volume: 330 X 185 X 400mm  
Materials: Hobby, Functional, High Temp., Flexible, etc.

## Mass Manufacturing

CNC Machining	Fabrication
Vacuum Casting	Tooling for molds
Post Processing	Injection Molding
Sheetmetal	



## Case study





## Consumer Electronics

A wide proportion of our projects are consumer electronic devices and enclosures. Applications these products vary widely, some of the projects that we have worked on including wearable tech devices for tracking, contact tracing & navigation assistance.

The design team here at IDoFThings have extensive experience working on projects of this nature and have a comprehensive understanding of typical production processes, ultrasonic welding, over-moulding, IP rating and low cost iterative prototyping and design optimization. We have highly skilled and responsive hardware engineering specialists who we work with to insure seamless transitions from design, development through to production.

### Few important projects includes

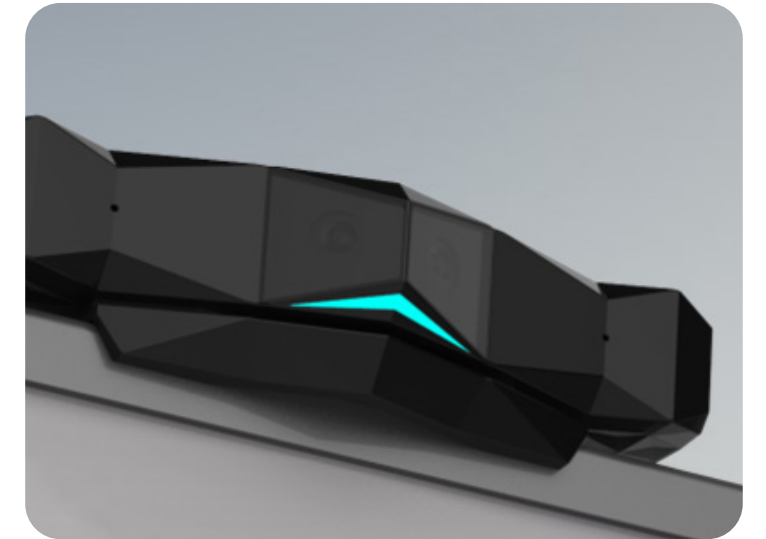
Navisor - Navigation assistance device

Cerence - Gym activity monitoring device

Button tag – Smart wearable

Safety watch – Safety equipment device for Electricians

Smart kettle - Kitchen utensils



# IoT/ Renewable/ Industrial

We are well equipped to contribute to this industry due to our expertise in sheet metal and plastic design. Applications these products vary widely, some of the projects that we have worked on including remote monitoring and control, Night Vision & Thermal Imaging, Smart Energy management, etc.

Our design team members are involving in ideation, hardware engineering, mechanical engineering, detailed design & technical documentation for manufacturing.

The prototyping capability we have in-house enables us to conduct quick evaluation trials as well as appearance mock-ups. In the manufacturing phase we are in collaboration with expert people in sheet metal, CNC machining & injection molding.

## Few important projects includes

Del IO – Remote Monitoring and Control

Dual Camera – Thermal Imaging Purpose

P-SECURE Smart Energy Management

Rugged Gate Way (IP 68)

Air IoT - Air quality sensor.





## Automotive

Automotive accessories and AI based infotainment products are exciting area of innovative products, We have involved with our clients as a part of their development team. They offer opportunities to explore functional requirements and form factor constraints.

We are involving in the ideation phase to understand the problems in depth. Our design team members are involving in ideation, product layout, plastic part design, casting part design, material selection, detailed design & technical documentation for manufacturing.

As part of our service offerings, we have actively assisted a few clients with their entire design and development cycle, including industrial design, mechanical engineering, manufacturing support & qualification.

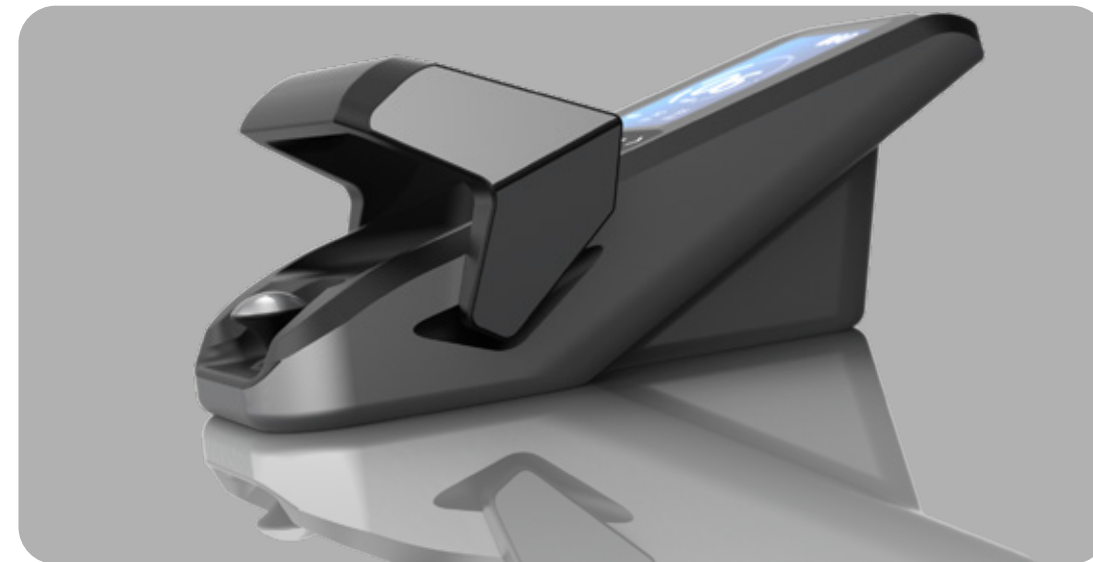
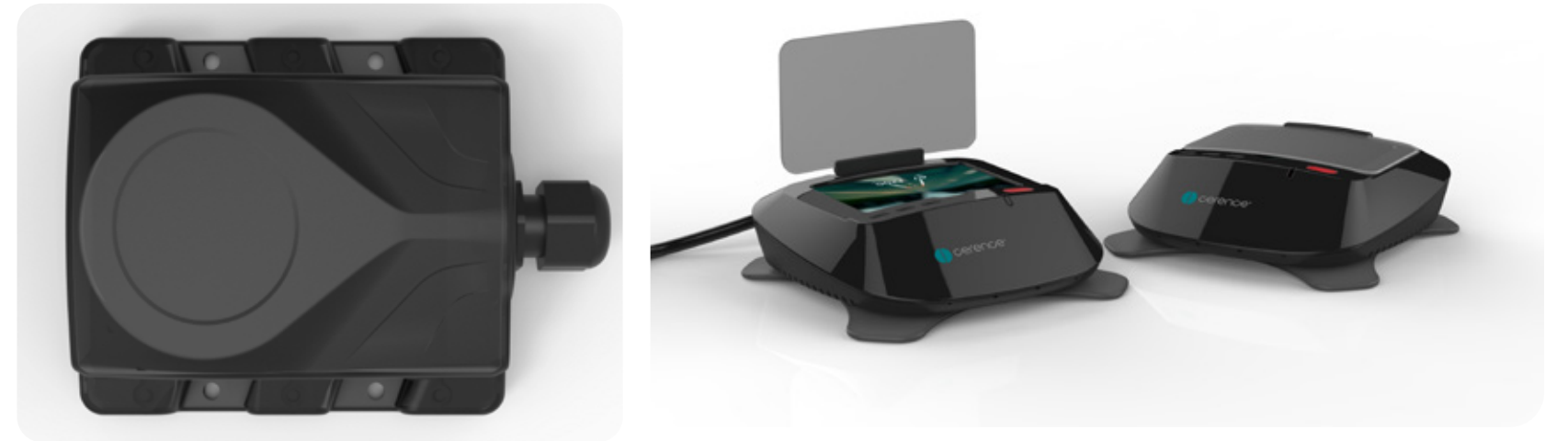
### Few important projects includes

GPS Tracker – Vehicle Tracking Device

EV Electric Drives – for Two Wheeler & Three Wheeler

AI Accessory – Automotive Infotainment Upgrade

OBD Series – Vehicle Tracking Device





# Healthcare

It was our team's expertise in the healthcare domain that allowed us to contribute well to this industry. These projects often need to meet a predetermined specification for performance or meet a set of needs as the primary objective for the design solution.

In-depth understanding and knowledge of material properties and limitations allow us to select material groups and types, to deliver against those requirements, from hygiene and environmental health to servicing and assembly, and form studies, using geometry optimization to improve strength to weight ratios.

The prototyping capability we have in-house enables us to conduct quick evaluation trials as well as appearance mock-ups.

## Few important projects includes

Smart Monitoring – Mobile Patient Monitor

Adjustable Bed – Optimized Mechanism Design

Negative Pressure Wound Therapy Device

Blood Stainer Lab Equipment.



## Learning kit / Toy design

Our team's understanding of play psychology and user engagement helps us design toys, games, and activities that balance fun, safety, and functionality.

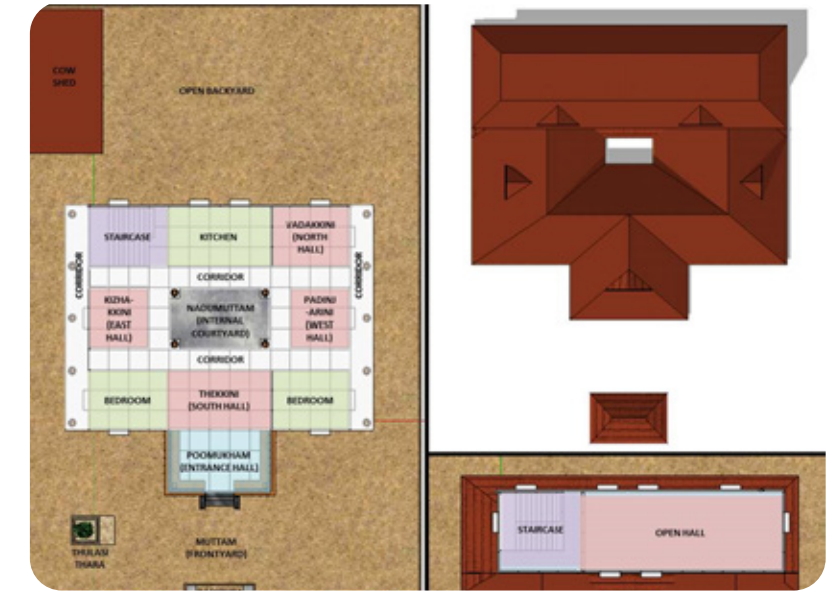
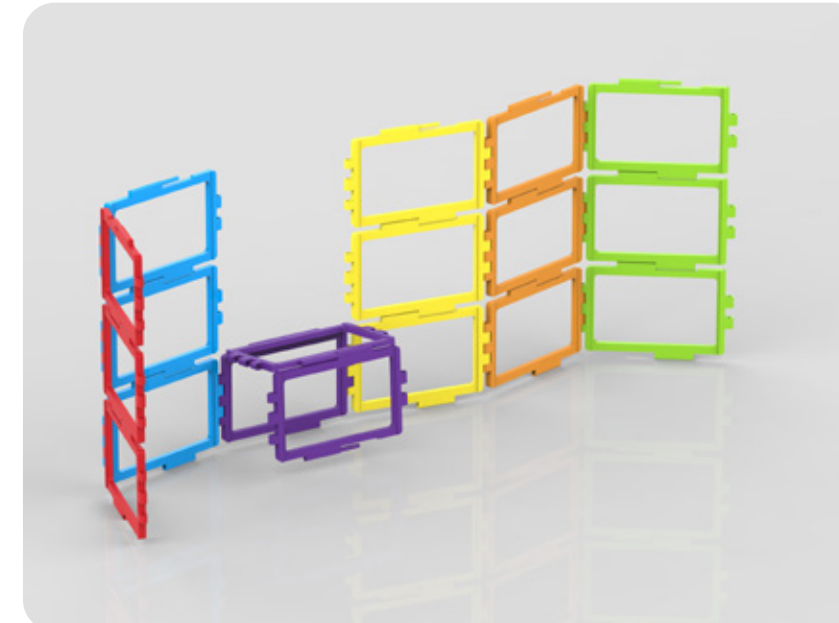
We leverage our knowledge of materials and regulations to select safe, durable, and age-appropriate components, enhancing both experience and manufacturability.

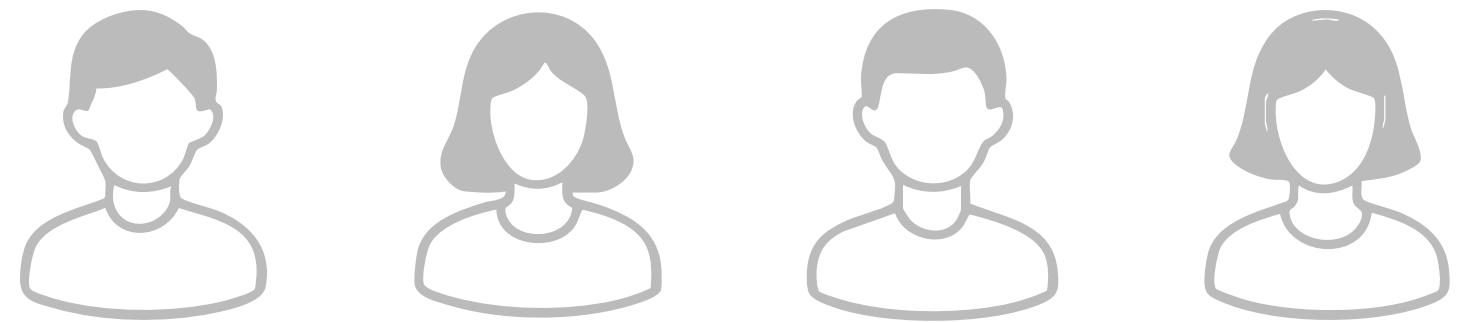
In-house prototyping allows for quick testing of interactivity, ergonomics, and appearance, ensuring engaging and user-centered outcomes.

### Projects :

**Preschool Education in a Box** is a game-changing solution reimagining early childhood education for communities everywhere—especially where access is limited. Designed to be portable, affordable, and incredibly engaging, this all-in-one toolkit transforms any space into a vibrant learning environment.

**The Kerala Naalukettu Dollhouse** is a research-driven toy that blends traditional Kerala architecture with developmental play. Featuring modular parts, sloping roofs, courtyards, and padippura gateways, it encourages spatial learning and creativity. The set includes diverse dolls, accessories, and a storybook to promote cultural storytelling, emotional growth, and parent-child interaction making it more than a toy, but a platform for heritage-based play across generations





**Meet our Team**





**Arunraj R**

Founder & CEO

With 20 years of global experience in Industrial and Mechanical Design, Arunraj blends creativity, technology, sustainability, and commercial focus to develop impactful products. His contributions have earned recognition from ISRO, GE Healthcare, THALES, and Nissan Ashok Leyland.



**Chandran K P**

**S M E**

Industrial Design

With over 35 years of experience, including 15 years with global clients, Chandran has successfully designed 100+ products across diverse domains. Known for his artistic and visualization skills, he remains passionate about hands-on design using advanced tools.



**Balakrishnan M**

**V P**

Engineering

A seasoned leader with 35 years in analog, digital, embedded, and power electronics. Expertise includes optimizing product design for performance, reliability, cost, and regulatory compliance across Medical, Industrial, and IT products. Held senior roles in critical development programs.



**Babu A P**

**S M E**

Mechanical Engineering

With over 30+ years of experience in plastic design and product development, Babu is a respected leader known for driving innovation and mentoring designers. His career includes work with an ODM serving major healthcare OEMs.



**Sangeeth M**

**Director**

Mechanical Engineering

Passionate about innovative, sustainable solutions, he has collaborated with ODM and OEM partners, leveraging engineering expertise, CAD proficiency, and hands-on prototype development. His career highlights include contributions to numerous successful projects.



**Mahesh Babu**

**Technical Manager**

With **25 years** of experience in hardware design, firmware development, and PCB design, Mahesh specializes in NPI, pilot production, yield improvement, test setup development, and technician training, with a strong track record of collaboration with leading ODM and OEM partners.



**Dhanush**

**S M E**  
Mechanical Engineering

With **24 years** in product design across diverse domains, Dhanush specialize in CAD-based mechanical design, material exploration, and product development from concept to production. His expertise includes sheet metal, die-cast, thermoplastics, composites, and value engineering.



**Nikhil Raj**

**S M E**  
PCB DESIGN

With **20 years** of experience, Nikhil is a skilled PCB Design Engineer known for delivering complex projects on time and within budget. Proficient in Altium Designer, Eagle, KiCad, and Cadence Allegro, he is a valuable asset in the field.



**Brutus Martin**

**Manager**  
Mechanical Design

Multi-faceted, efficient and reliable professional with **8.5 years** of experience in mechanical CAD design and design related activities. Proficient in SolidWorks, Pro-E(Creo) & Catia and have hands-on experience in sheet metal, plastic in medical, industrial, automotive and defence domains.



**Jinu Vargese**

**S M E**  
Thermal Management

With 10+ years' experience in structural, thermal, and CFD simulations, Jinu is Expert in high-performance design for electronics. Proficient in ANSYS, SolidWorks, and Flotherm XT, contributing to telecom, aerospace, and consumer product sectors with precision and innovation.



**Robin Augustine**

**S M E**  
Optical Engineering

With 20+ years in fiber optics, optoelectronics, photonics, and optical system design, Robin drives innovation by linking theory with practical solutions, delivering highly optimized, cutting-edge technologies across diverse projects and advanced optical applications.



**Jithin Jyoth**

**Lead**  
Industrial  
Design



**Sadhique V A**

**Lead**  
Industrial  
Design



**Hariprasad K C**

**Tech Lead**  
Mechanical  
Engineer



**Dominic A D**

**Tech Lead**  
Mechanical  
Engineer



**Sreejith Thampi**

**Tech Lead**  
Mechanical  
Engineer



**Joseph Johny**

**Senior Associate**  
Mechanical  
Engineer



**Gladson Sabu**

**Architect**  
Hardware  
Engineer



**Ashly George**

**Tech Lead**  
Hardware  
Engineer



**Athency Antony**

**Senior Associate**  
Hardware  
Engineer



For further information, feel free to get in touch with us.

We welcome potential clients to contact us for consultations or inquiries about our services and expertise.

**Thank You** 