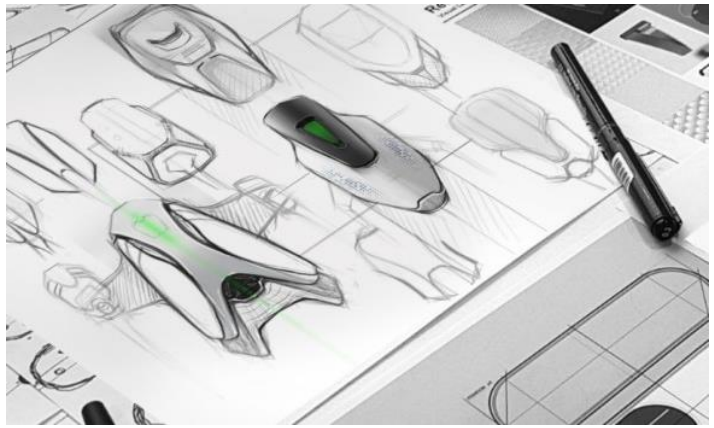
Company Profile

Date: 01 JUNE 2024



(ID)OF(THINGS)

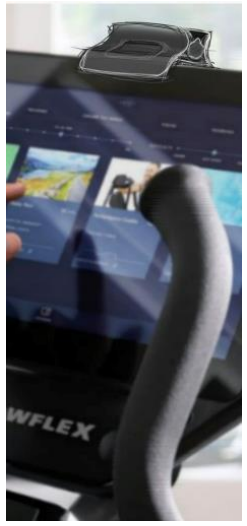
ELEVATING POSSIBILITIES

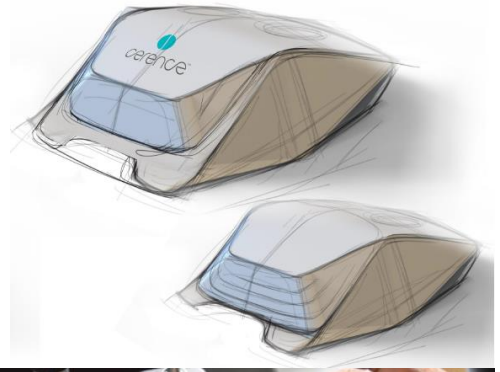
A BRIEF INTRODUCTION

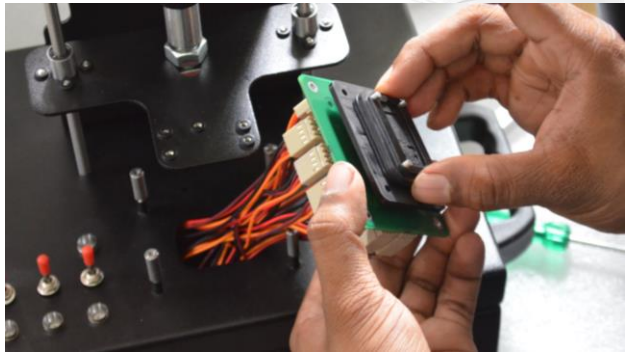
Welcome to IDofThings, a Kochi (India) - based Industrial and Product Design studio led by a group of Industrial Designers & Engineers. Founded in January 2020. The studio operates as an extension of our client's research and development for new concepts and self-initiated experimentation, as well as 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.







CLIENT LIST

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

RESEARCH & DISCOVERY

Good design solves a problem or addresses a need. The in-depth research and observation phase allows us to discover and define relevant human behaviors and needs, which drives insights. This is multilayered from contextual inquiry, user interviews, workshops to technology and material feasibility.

IDEATION & EXPOLORATION

The concept phase typically allows us to quickly generate a broad range of ideas to explore opportunities driven by our understating of the problem and the insights generated from research. In this phase we define a vision for the project in line with the client values and aspirations.

DESIGN & ENGINEERING

The design process is simply a logical order to follow when creating a new thing. It starts off by casting a wide net, exploring a range of ideas and considering different available options. Then tends to move back and forth between human factors and tech requirements in a pendulum motion.

Eventually producing a final design that is optimized for production while responding to the needs of the intended end user.

TESTING & REFINEMENTS

A preferred concept is taken forward for iterative development, we use tools available to us to create multiple iterations of a design to a refined form and function. This stage focuses in on functional details such as; fitment, tolerance and specification of components.

We use prototypes to test and learn about the aspects of the new design. Learnings from a prototype are used to develop to further refinements in design.

SERVICE OFFERINGS

INDUSTRIAL DESIGN

Design Research
Benchmarking
Trend Analysis
Opportunity Mapping
Human Factors
Usability Study
Rough Product Sketching
Refined Invention Sketching
3D CAD Concept Modelling
Hi-Res Rendering
CMF Visualization
Product Animations
Consumer Packaging Design
3D printed Mockups
IP Drawings & Documentation

MECHANICAL ENGINEERING

Parametric 3D Modelling
Assembly Modelling
Plastic Part Design
Sheetmetal Part Design
Casting Part Design
Reverse Engineering
Value Engineering
Thermal Management
Structural & Stress Analysis
Detailed Engineering Design
Tolerance Analysis
CAD Conversion / Migration
2D Drafting
Mechanism Design
Jigs & Fixture Design
Design for Manufacturing
ECO Management
Technical Documentation

PRODUCT ENGINEERING

Conceptualization
Product Design & Development
Hardware Engineering
PCB Design
Embedded Engineering
Electronics Enclosure Design
Product Packaging
Design for Compliance
Testing & Validation Support
Maintenance & Support
Re-Engineering
VA/VE
DFMA
Supply Chain Management
Obsolescence Management
Technical Documentation
Prototype Development
Low Volume PCB Assembly

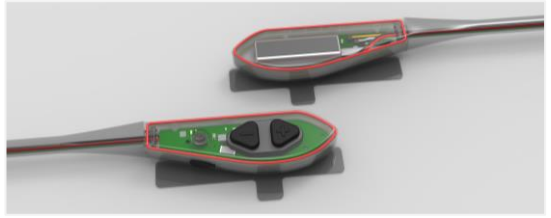
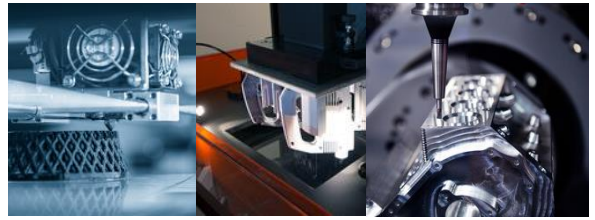
MANUFACTURING

FDM 3D Printing
DLP/SLA 3D Printing
Vacuum Forming
Functional Prototyping
Low Volume Product Assembly
Manufacturer Sourcing

+ COLLABORATION

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



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.

Featured, Clockwise from top left

- Navisor – Navigation Assistance for bike riders
- Tablio – Wearable solution for enterprise communications
- HV Tester – Safety Wearable
- Button Tag – Intelligent Wearable

CASE STUDY | AUTOMOTIVE

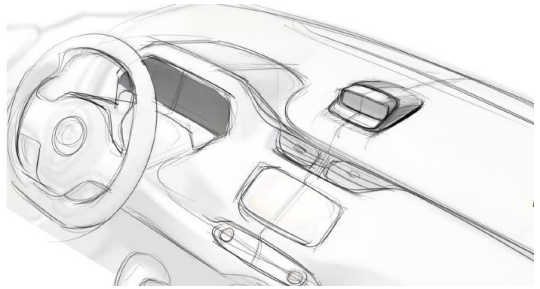
Automotive accessories and AI based infotainment products are exciting area of innovative products, We have involved with our clients as a part of their development team. They offer opportunities to explore functional requirements and form factor constraints.

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.

Featured, Clockwise from top left

- GPS Tracker – Vehicle Tracking Device
- EV Electric Drives – for Two Wheeler & Three Wheeler
- AI Accessory – Automotive Infotainment Upgrade
- OBD Series – Vehicle Tracking Device



CASE STUDY | 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.

Featured, Clockwise from top left

- Smart Monitoring – Mobile Patient Monitor
- Adjustable Bed – Optimized Mechanism Design
- Negative Pressure Wound Therapy Device
- Blood Stainer Lab Equipment.

CASE STUDY | 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.

Featured, Clockwise from top left

- Del IO – Remote Monitoring and Control
- Dual Camera – Thermal Imaging Purpose
- Rugged Gate Way (IP 68)
- P-SECURE Smart Energy Management

3D PRINTING

It was a necessity for us to acquire our own 3D printing facility so we could perform quick iterative testing of the design. We eventually gathered superior knowledge and experience about 3D printing technologies available.

As a result of inspiration and requests from our cohorts, we have started to offer 3D printing services as well. In terms of 3D printing methods, we are currently one of the leading service providers in FDM and DLP.

FDM Competency

Industrial Grade Printing Quality
10+ Machines Available
Build Volume: 450 X 450 X 450mm
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.

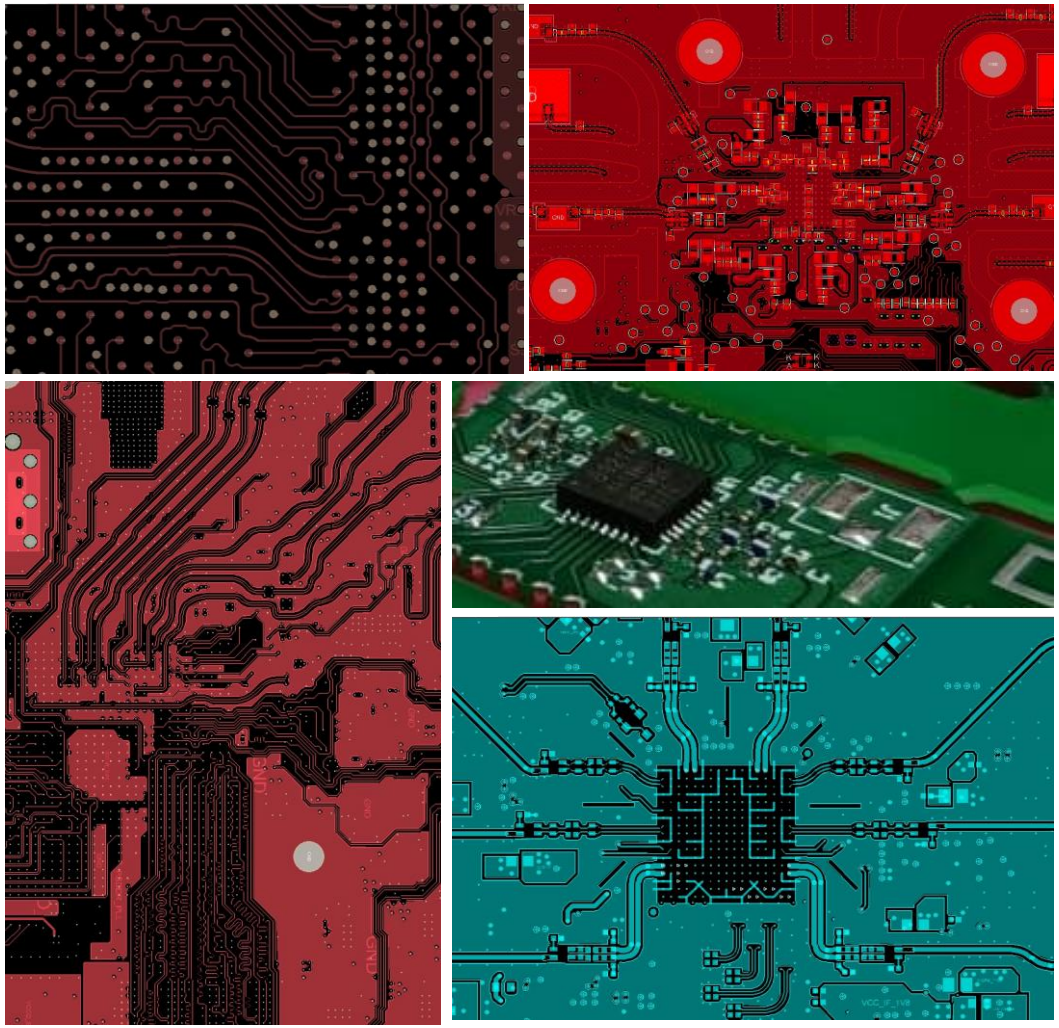
PCB DESIGN

We provide custom printed circuit board design and layout for analog, digital, and mixed-signal boards. We can build printed circuit boards from scratch or improve and optimize your existing design for cost-effective assembly. With highly-skilled and experienced staff, we are well-positioned to provide quality PCB design & prototyping services.

Our ECAD design team having immense expertise in handling HDI designs, Blind, buried, any layer via, via in pad designs, Rigid, rigid-flex designs. Team has handled many Analog, digital, mixed signal PCBs for many high frequency, high speed, high power applications.

Our designs falls under industry standards and DFM, DFA are the prime considerations of each designs. We have connection with wide range of Fabrication and assembly houses in India, China, Europe, US, etc. ECAD team is headed by people who have vast industrial expertise. Our engineers prioritize performance, manufacturability, cost, and design for test-ability to ensure the best possible board at a fair price.

Working with current technologies and cross-industry experience make us a valuable partner in PCB design. Thus, we are in a position often to provide insights into schematic designs and proactively give feedback on schematic errors and layout methods.



OUR TEAM

ARUNRAJ RAJAN
FOUNDER | CEO

Arunraj is the founder | CEO of IDofThings. Striving to design meaningful products with a blend of creativity, tech-expertise, sustainability, and commercial focused outcomes. His experience in the field of Industrial and Mechanical Design spans two decades and he has developed products worldwide. ISRO, GE Healthcare, THALES, Nissan Ashok Leyland, etc. recognized him for his contributions to product development.

BALAKRISHNAN MADATHIL
VP ENGINEERING

Seasoned leader with technical and management experience in large enterprises and startups. In his 35 years of experience, he has been involved in analog, digital, embedded and power electronics and focused on optimizing product design for performance, reliability and cost; as well as ensuring regulatory compliance for medical, industrial and information technology products. Held senior engineering positions in critical development programs.

CHANDRAN KP
SME – INDUSTRIAL DESIGN

Chandran is a senior Industrial Design professional having over 35+ years of experience in India, with more than fifteen years exposure to global customers.
He has a proven track record of successfully designing more than hundred products from multiple domains. Endowed with excellent artistic and visualization skills. Retained passion for hands-on experience in designing throughout his career, using state-of-the-art design tools.

SALU MS
LEAD – INDUSTRIAL DESIGNER

A detail - oriented, performance-driven, and highly-accomplished Industrial Designer with 10+ years of experience in developing concepts and designs for multiple domains. He has the ability to stem up with steady new ideas and staying up-to-date with the latest trends and opportunities. Possess excellent skills to evaluate the function, aesthetics, production costs, and usability of products when developing new product concepts.

SANGEETH M

SENIOR MANAGER (ME)

He is passionate about creating innovative and sustainable solutions that bring value to both clients and end-users. He has worked with ODM and OEM partners, sound understanding of engineering principles, combined with proficiency in CAD software and hands-on experience with prototype development and testing. His career has been marked by significant contributions to the successful completion of numerous projects.

BRUTUS MARTIN

LEAD – MECHANICAL ENGINEER

Brutus Martin is a 7 years experienced, highly trained mechanical design engineer with finely tuned design skills, critical thinking, and collaborative skills. Experienced in designing, simulating, and testing various products in a high-stakes environment and have earned recognition for outstanding creative solutions. Knowledge in international standards and certifications in healthcare, industrial, automotive, defense and aerospace domains

HARIPRASAD

MECHANICAL ENGINEER

Hari is a certainly passionate mechanical engineer with good knowledge of technologies, tools, and best practices. He has 5+ years of combined experience in manufacturing, design, and R&D activities along with strong knowledge in 3D Printing and possesses exceptional skills in planning and executing projects. Expertise with latest prototyping techniques such as FDM, SLA, DLP, SLS & MJF.

DOMINIC AD

MECHANICAL ENGINEER

A Tool & Die design engineer has over 10 years of experience in the industry. Having the ability to analyze manufacturing processes, identify areas for improvement, and design innovative solutions to enhance efficiency. Contributing to the development of new products. He is passionate about staying up-to-date with the latest technologies and techniques in his field. Commitment to continuous improvement make him a valuable asset to any team.

BABU A P

SME – MECHANICAL ENGINEERING

With a renowned career spanning three decades, Babu is deeply passionate about driving innovation in product design. His extensive experience in plastic design, combined with steady commitment to excellence and precision, positions them as a respected leader in the field of product development. Babu is known for mentoring and guiding designers and fostering a culture of excellence. Previously, he worked with an ODM that worked with major healthcare OEMs.

MAHESH BABU

TECHNICAL MANAGER (HW)

Mahesh Babu has 25 years of experience in hardware design & development, who has strong fundamental knowledge and practical expertise in hardware design, firmware development and PCB design. He possess relevant experience in NPI in production line, solving pilot production problems, Yield improvement, Test Set-up development, training programs for technicians in new technology. He has worked with ODM and OEM partners

NIKHIL RAJ

SME – PCB DESIGN

With two decades of experience, Nikhil is a seasoned and results-driven High-ranking PCB Design Engineer who has consistently demonstrated technical prowess, attention to detail, and the ability to deliver complex projects on time and within budget. His deep knowledge make him an invaluable talent. His proficiency extends to using industry-standard design software such as Altium Designer, Eagle, KiCad, and Cadence Allegro.

ATHENCY ANTONY

HARDWARE ENGINEER

Athency is a highly motivated hardware engineer with 5 years of experience in the field of hardware engineering and PCB layout, design and development. Athency excels in a collaborative work environment. They have experience working closely with cross-functional team members, mechanical engineers and FW engineers, to ensure successful projects. With this experience, they have honed technical skills and gained practical knowledge

Get in Touch...

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