



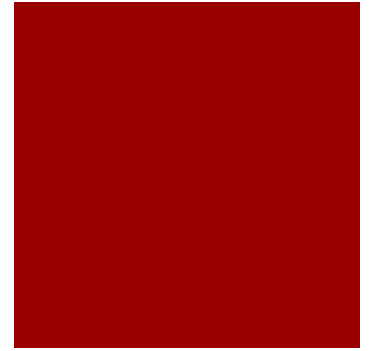
# **Company Profile**

# **Ambimat Electronics**

**Durgesh Shah**  
**CEO & Founder**  
**Ambimat Electronics.**

# Disclaimer

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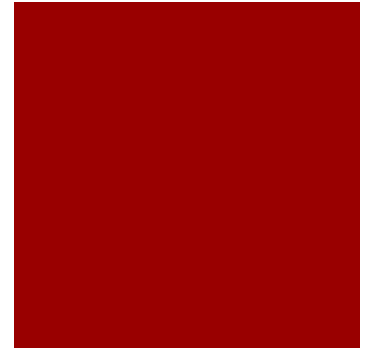


# Company Overview



- Ambimat Electronics has a vast experience in **design, development, fabrication, installation, commissioning and maintenance** of Custom Built Projects for over **three decades** now. Over the course of these thirty years we are proud to have given shape to numerous projects for a wide spectrum of customers.
- Our strength is in conceptualization of a product, drawing up the system architecture, board layouts, supply chain management, embedded firmware development, field testing and other related requirements.
- Furthermore, we understand that any custom built electronic equipment requires an integral mechanical design support. This includes not only the mounting of the hardware placed inside enclosures but also the enclosure itself. We have designed and fabricated enclosures for a variety of standards like IP 65, IP 66, IP 67, NEMA 4, FRP molded enclosures and enclosures fabricated by CNC milling of aluminum alloy of 6061TS for special applications.

# Mission



At Ambimat, we are committed to understand, accept, meet and exceed the expectations of our customers. We do this by remaining on the bleeding edge of this ever changing field of Hardware-Software Co-design. The fact that we learn from our past, adapt to the present and plan for the future separates us from our competitors and drives us forward in our pursuit of excellence everyday.

# Legacy and On-going Projects



## Educational Sector:

- Microprocessor trainers and educational teaching aids
- Single Board Computers (SBC)
- Ultra-violet EPROM erasers

## Industrial and Commercial Products:

- Loom control units
- Power factor controller
- Control System Design for CNC machine
- Point of Sale systems
- Control Panel for Ice cream cone filling machine.
- Flight status display units
- Design, fabrication, integration & wiring of led and camera trigger unit
- Cable Test and Reporting System for up to 100 core cables

## Home and Industrial Automation Products:

- Smart Home solution systems based on 802.15.4, 802.11 etc.
- Wall mounted smart phone chargers.
- M2M communication solutions for smart homes
- Sensor based Industrial Data Acquisition (DAQ) systems
- Fleet management position tracking systems.
- Smart power strips for remote management of Industrial equipment

# Legacy and On-going Projects



## Aerospace Projects:

- Design and fabrication of Position control systems for remote maneuvering of antennas.
- Fabrication of Spacecraft Interface Simulator units.
- Design and fabrication of online voltage and current monitors for simultaneous monitoring of upto 78 I/O lines.
- Test Unit for Detector Head Assembly of Electro Optical Camera.
- Fabrication of indicator units for remote monitoring of the payload parameters by base stations.
- Fabrication of Simulation systems for payload communication.
- Fabrication of Quadrature Phase Shift Keying (QPSK) modulator.

## Export Services:

- Design and Development of Machine to Machine communication board based on GSM and CDMA technology
- Design and Development of Bluetooth Low energy based beacon technology
- Design and Development of a Industrial monitoring system
- Design and Development of custom Heating Ventilation and Air-Conditioning (HVAC) systems.

# Some of our most valued clientele



## Educational Sector:

- Local In-State Engineering Colleges like L.D. Engineering College, Dharamsinh Desai Institute of Technology, BVM Engineering College etc.
- National Institute of Technology at Surat
- World renowned Indian Institutes of Technology at Mumbai, Delhi, Kharagpur.

## Industrial and Commercial Products:

- Power loom Units in Surat,
- Elecon Engineering Company,
- Ahmedabad Electricity Company,
- Vadilal Icecream Limited,
- Emerging Technologies-Mumbai.
  
- Indian Airlines (now, Air India)
- Research and Development wings of Institutes like Indian Petrochemicals Corporation Limited (IPCL), Tata Institute of Fundamental Research (TIFR), Bhabha Atomic Research Center (BARC), Semi Conductor Limited (SCL) etc.
- Institute of Plasma Research

# Some of our most valued clientele



## Aerospace Projects:

- Physical Research Laboratory (PRL), India
- Space Applications Centre (SAC), India
- Indian Space Research Organization Satellite Center (ISAC) Bangalore, India
- Antrix Corporation Ltd. Bangalore, India
- Bharat Electronixs Ltd. Ghaziabad, India

## Our newest ventures:

### Home and Industrial Automation Products:

Residential and commercial spaces in India

### Export Services:

Ciright Systems Inc., Conshohocken, PA, United States



# Infrastructure Set Up



- Electro-Static Discharge (ESD) Safe PCB wiring rooms. The wiring work done here protects ESD sensitive chips/devices.
- ESD safe temperature and humidity controlled clean rooms. These clean rooms are Class 100000 clean rooms equipped with Vertical Laminar flow tables. The clean room is equipped with ESD safe chairs, Air curtain, Sticky Matts, clean room garments, ESD safe footwear etc.
- The tools and accessories used by fabricators to carry out wiring and integration of various jobs conform with the standards set by the Systems Reliability Group, Indian Space Research Organization, India.
- This facility is also equipped with computers with both Linux and Windows Operating Systems with internet connectivity.
- We also have the option of expanding our facility as per the requirement of the job and are glad to accommodate any special requirements that our clients might have for hardware design and fabrication.

# Hardware Design, Manufacturing, Assembly and testing:



- Ambimat has successfully realized projects for PCB design, Layout and fabrication of Multi Layer PCBs ranging from two layers to twelve layers. That said we do possess the necessary expertise and skill set to go above that.
- We have skilled manpower, who can work on Cadence, OrCAD, Altium, PCAD, PADS, CADSTAR, EAGLE etc.
- We have skilled technicians who can manually wire various thru hole and SMD chips as well as passive components for packages like the 1206, 0603, 0402 etc. We have pick and place machines that will place and solder components of various packages.
- We have in the past wired Small outline Integrated Circuits (SOIC), TQFP, 208 & 240 pin PQFP and 272 pin BGAs. We are working on projects that entail the use of LGAs as well.
- Our Test Facility has most equipment like Power Supplies, Signal Generators, Scope, Analog & Digital Multimeters coupled with PROM Programming & PLD Development Support, Various Development Modules, Breakout Boards and tools for Embedded Development
- We have the capability of accomplishing functional testing and environmental testing with 168-hour burn-in analysis.

# Electronic Manufacturing services (EMS) / Contract manufacturing services:



- Ambimat can build double sided boards as well as multi-layer boards upto 24 Layers
- Minimum conductor width, minimum conductor spacing, hole size, maximum board size, number of layers and other specifications can be provided on request.
- We can also build flexible PCBs of various sizes and shapes.

# Embedded Software Services



- On the software front our expertise is on higher level programming languages like C and C++ as well as assembly level programming for a wide range of MCUs starting from the legacy processors like 8085 to the most recent ARM Cortex M series.
- We have worked on a variety of IDEs like AVR Studio, TI Code Composer Studio, Keil uVision, nRF Go Studio etc. It must be evident that we have worked on MCUs from various silicon vendors like ATMEL, NXP, TI, RENASAS, NXP, RABBIT, etc.
- Our past products also gave us exposure to Embedded Linux and RTOS programming on the Hardware Abstraction Layer as well as the Application Layer.

# Supply Chain Management:

- Our Supply chain management wing has special rate ties with various local vendors as well as global vendors from countries like Singapore, Taiwan, Malaysia, China, United States etc. If the quantities are high we can also reach out directly to the manufacturers of the components and get the best rates possible.
- Our goal has always been to provide our clients with the best quality products at the lowest price possible.
- We have, in the past, procured and imported a broad range of devices like FIFO, EPLD, LVDS, ADCs, DACs, LDOs, Hybrids, RF switches, Power Splitter / Combiner, RF amplifiers, RF cables, SCSI & Combo – D two part FRB and MIL grade 1553 bus connectors, PCI controllers, MCUs, FPGAs, DSPs etc.

# Turn Key design and development solutions



- Ambimat has a history of working on taking concepts to production.
- At Ambimat, we will help you put your concept into a prototype. This includes putting together the systems architecture, creating a breadboard model and then designing a printed circuit board as a prototype.
- Once approved we take the prototype into production for quantities from 100 to 100,000 and more.
- This includes bare bone PCB testing, UL certification of bare PCBs, supply chain management, wiring either manually or with pick and place machines, running the test suites as suggested by the client and any special requirements that the client might have
- We can also design enclosures and create 3D printed models. Once approved molds for injection molding can also be created and high volume enclosures can also be prepared.
- FCC certification services can also be provided.

# M2M and IoT communication devices



- Ambimat has experience working with Telit, Gemalto, SIMCOM as well as Sierra Wireless modules
- We are currently working with multiple customers on getting their sensor based boards connected to a cloud computing platform
- We have partners who can provide cloud computing services along with the necessary software expertise to connect your devices to the cloud
- Android and iOS developers can also provide mobile apps that are connected to your devices via the cloud.
- We can also help the client negotiate prices for the data used over cell networks.

# Outsourcing R&D and Design partnerships



- Have a design ready and need someone to take it to the next level? No worries. Ambimat does that too.
- We protect your IP as our own and respect your NDA.
- We can also foot the NRE if we have a confirmed order of a certain number of manufacturing jobs. We will charge a premium over each board and recover the NRE over time.
- All other services like Embedded Software development, Hardware development, Wiring and Assembly can also be a part of the design partnership



# Contact us:

Feel free to reach out to us for any of the following:

- Hardware Design, Manufacturing, Assembly and Testing
- Electronic Manufacturing Services (EMS) / Contract manufacturing services
- Supply chain management
- Embedded Software Design
- Turn-key design and development solutions
- M2M and IoT communication devices
- Outsourcing R&D and Design Partnerships.

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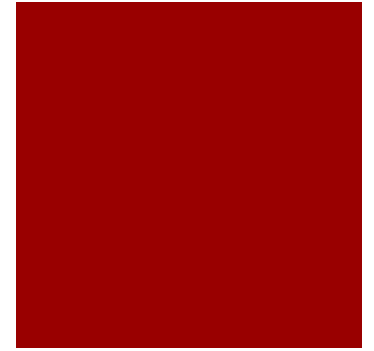
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THANK YOU

