

# i2E Group

Complete Solutions Partner



**Product Realization • Manufacturing • Services • Business Ventures**  
**Electronic, Mechanical, Electro-Mechanical & Software Products**

## PROVIDING SUPERIOR SERVICE, HIGH QUALITY & HIGH VALUE

**i2E Group, LLC**, stands for Innovation to Execution and represents our range of capabilities from idea creation to engineering, design and development to full turn-key manufacturing to distribution of hardware and software.

We are able to do this by practicing:

- Economics
- Flexibility
- Technical Expertise
- Responsiveness
- Focus
- Advanced Manufacturing Techniques

## SERVICES

**ENGINEERING DESIGN & DEVELOPMENT:** Circuit, Product, and System Design • Software Development • Design for Excellence • Design for Manufacturing • Design for Test • Design for Cost Reduction • Prototyping

**NEW PRODUCT INTRODUCTION (NPI):** Proprietary Project Management

**MANUFACTURING & ASSEMBLY:** Low to Mid Volume • Complex Processes • Automated & Manual • Turn-key & Kitted

**TESTING:** Functional and Diagnostic Testing • Test Fixturing and Burn-In

**DISTRIBUTION:** Logistics • Internet Shopping Cart Fulfillment

**COMMERCIALIZATION:** University Technology Transfer • Business Ventures

**QUALITY MANAGEMENT:** IPC-A 610

**MANUFACTURING FACILITY:** Clean/Modern 15,000 Sq. Ft. • ESD Controlled • Climate Controlled

## INDUSTRY FOCUS

**WIRELESS VOICE & DATA COMMUNICATION:** RF Amplifier Boards • Cellular Communication Test Boxes • SDR and Ultra High-End HF Transceivers • Security and Defense Surveillance • Bluetooth Monitoring Devices • IoT

**MEDICAL & BIOTECHNOLOGY:** Control and Sensing Instrument • R&D Equipment • Medical Test Equipment

**INDUSTRIAL CONTROLS:** SMT Hybrids • ATE Boards • Switches • Controllable Thermostats • Access Systems

**SOFTWARE:** Data Analytics • Security • Infrastructure • Internet of Things • HAAS

**INDUSTRIAL POWER DISTRIBUTION:** Surge Suppressors • Fire Suppression Equipment

**MECHANICAL:** Orthopedic Therapy Equipment • Heated Storage Racks

**ELECTRONIC POINT OF SALE:** Electromechanical Control Boards

**AEROSPACE & TRANSPORTATION:** Destination Signs • Signal Control and Automotive Control Boards

**CLEAN ENERGY:** Solar Infrastructure Control Panel • High-Efficiency LED Lighting

## TECHNOLOGIES

LED Lighting

RF – High Frequency, noise suppression, shielding and grounding

Raspberry Pi & Omega 2

High Speed, Lower Power Processors – TI MSP 430 Series

Mixed Voltages – High Power AC combined w/ DC Signal Voltages

## TURN-KEY MANUFACTURING CAPABILITIES

### PCB Surface Mount Assembly including Ultra-fine Pitch

- Offline Prototyping Capability
- 0201 Chips through 2.2" BGA/QFD, Flip chip, and odd-shaped components
- BGA & Micro BGA Placement > 4mil, QFP > 12 mil
- Single, double-sided, and mixed technology assemblies (up to 44 x 32")
- ROHS Compliant Capable
- Water-soluble & No Clean solder processes

### PCB Through Hole Assembly

- Automatic Component Prep
- Wave and hand soldering, multi-layer boards
- Water-soluble & no clean solder processes

### Wire and Cable Harnesses

- Twisted pair, Flat Ribbon, Coaxial and RF, Automatic
- Prep and Termination

### Chassis & System Assembly

- Electronic
- Electromechanical
- Mechanical, Sub-Assembly to Finished Product
- Conformal Coating
- Curing Oven for encapsulates

### Rework / Repair

- Remove and replace: Fine and ultra-fine pitch SOIC's, QFP's, and BGA's
- Discrete components down to 0402 size
- Verify continuity and Repair PCB scratches
- Repair broken traces
- Reclaim parts from damaged PCB assemblies for remounting onto repairable assemblies
- Sourcing of repair parts and components

## EQUIPMENT

### Surface Mount

- Screen Printer with 2D Inspection System, Inline, Ekra X5
- High-Speed Placement Machine, Inline, Mydata My12
- Reflow Oven, 16 Zone Forced Convection, Inline, Heller 1800EXL
- X-Ray Machine, Nicolet NXR - 1400
- RF Oven Profiling Kit, Supermole Gold Reflux
- Soldering / Rework Station, Pace MBT 250
- SMT Station, Pace ST 20A - SP & PV - 200VP
- 10X – 30X Inspection & Assembly Microscopes

### Through Hole Assembly

- Wave Solder 16" with Ultra Sonic Spray Fluxer, New ERA
- Solder Stations, Hakko, and Pace
- Rework Station, Pace
- Slide Lines, Airlink
- Axial Component Cut / Prep. OLAMEF TP 6
- Axial Component Cut / Prep. Hepco 8001 & LPF Loose Part Feeder

### Mechanical & General

- Lathe, South Bend
- Drill Press, South Bend

### Wire & Cable Harnesses Assembly

- Crimper / Applicator, AMP
- Automatic Crimper, Panduit
- Autosplice, General Staple
- Terminal Crimping Machine, X Cable Tech Super Mute
- Automatic Cut & Strip, X Cable Tech X-CS102
- Automatic Wire Cutter, Komax
- Wire Label Printer, Rhino 5200
- Air Pneumatic Crimping Machine (2), AM-30 LSD

### Testing

- Oscilloscopes, 50 MHz. Dumont 190 & 20 MHz, Hewlett Packard 1208B
- Digital Function Generator, Exact 127C
- Dual DC Power Supply – Digital, Vector 770A

### Information Systems

- Complete Enterprise Planning [ERP] software system with real-time MRP

### Rework / Repair

- BGA / SMD Hot Air Thermal Flow Rework Station, Pace TF 500
- Soldering / Rework Station, Pace MBT 250

i2E Group, LLC

2108 S. Elm St., High Point, NC 27260

Phone: 336-884-2014 Fax: 336-431-4084

[www.innov2exec.com](http://www.innov2exec.com)