



Design | Assemble | Test

Services

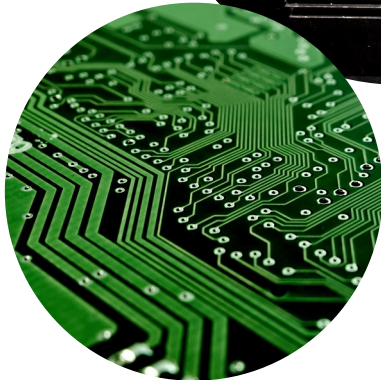
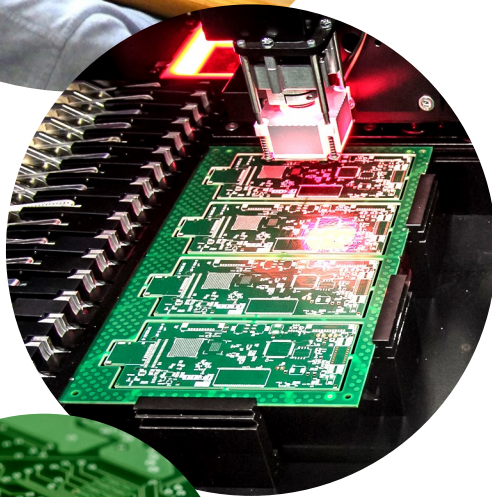
- Electronics Design
- PCB Layout
- Prototyping and Production
- Assembly, Inspection & Test
- Volume Production

Electronic



Design and Assembly Services

Finding a single source provider of complete solutions for electronic and mechanical design and production is challenging. Having directly experienced this problem, HGL has brought together at its Lincoln site the technologies, facilities and skill sets required to fulfil this market need.



Design

Electronics

HGL Dynamics' team of experienced Electronic Design Engineers has a wealth of experience in both analogue and digital electronic design. The company has developed its own range of market-leading data acquisition devices and is well equipped to design a wide variety of hardware and firmware, including designs incorporating micro-processors and FPGAs.

Our team can work with you to capture your requirements or work from your own detailed specifications. Using cross compatible, industry standard software, our team can turn your visions into reality.

PCB Layout

Following the completion of the circuit design phase, the PCB will be laid out, working within any specified mechanical constraints. HGL utilises the very powerful capabilities of the suite of design tools provided by Cadence - OrCAD Capture and OrCAD PCB Designer - to ensure that the design and layout tasks are carried out efficiently and effectively. We can also integrate the completed layout into a mechanical design using 3D modelling.



cadence[™]

Electronic



Design and Assembly Services

Assembly, Test & Inspection

Printed Circuit Boards

Assembly

Our investment in state of the art equipment allows us to efficiently assemble your PCBs whether the requirement is for a one off prototype or a production batch.

Inspection

All boards assembled by HGL are inspected by IPC-A-610(F) trained operators.

Test

HGL Dynamics can carry out functional testing of assembled PCBs and can work with you to generate test procedures and fixtures.

Product Build

HGL Dynamics can work to your requirements when it comes to assembling electronics into enclosures, housings, cases or onto panels and can manage the product build project from start to finish. Whether you require your enclosures or panels part-built or fully assembled with associated interconnects and wiring, HGL Dynamics can fulfil your needs.

Volume Production

We can offer a complete service sourcing bare boards, procuring components, full assembly, pre-production and low to medium manufacturing volumes utilising techniques from a variety of industries and customer applications to enable the best solution to your requirements.

We can also arrange for the machining of bespoke metalwork with our in-house Engineers and machining capabilities. Our experienced Technicians will fully test and inspect all final assemblies both mechanically and electrically, and provide a full set of documentation.



Electronic



Design and Assembly Services

Process Capabilities

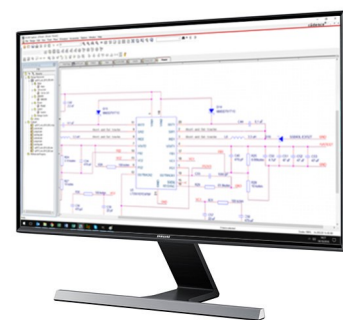
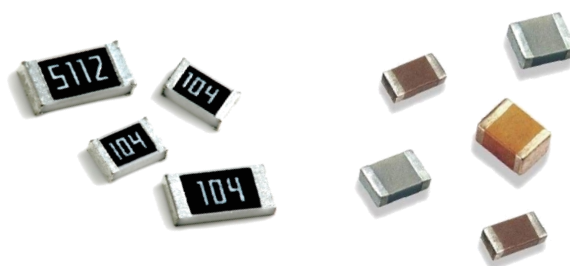
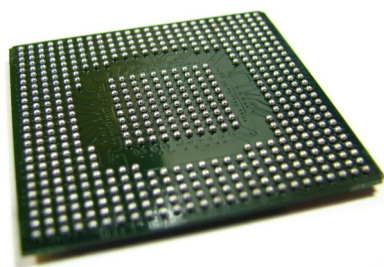
Min. Component Size: 0402
Min. Lead/Ball pitch: 0.5mm
Max. PCB Size: 415mm x 335mm
Max. Board Thickness: 3.5mm
Min. Board Thickness: 0.8mm
Min. Board Edge Clearance: 4mm
Placement Accuracy: 80µm
Placements per Hour: ~4500

Equipment

TWS SR2700 Semi-Auto Screen Printer
Essemtec Pantera X-plus Pick & Place
Essemtec RO400FC Convection Reflow Oven
Various 1.4x→20x Mag. Microscopes

Software

OrCAD Capture CIS (Schematic Capture)
OrCAD PCB Designer (PCB Layout)



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For details about our mechanical capabilities, please refer to our 'Mechanical Design and Manufacturing Services' brochure or contact HGL Dynamics.



Company registered in England No. 3844513