



MegaTechofOregon

We work smarter
to make your job easier

Introduction to Mega Tech of Oregon



33866 SE Eastgate Circle, Corvallis, Oregon 97333 • www.megatechoforegon.com
Ph 541-758-8242 or 888-878-3969 • Fax 541-758-7639

Services and Industries

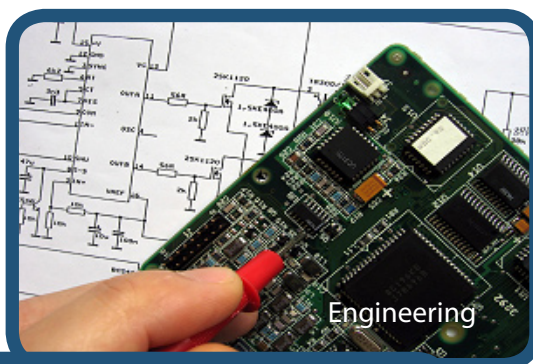
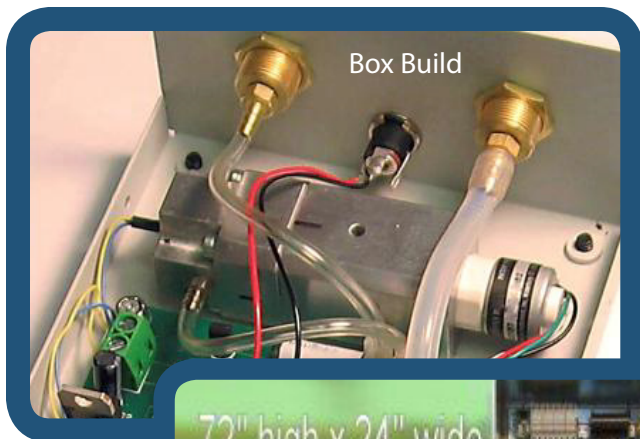


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Connect with MTO



Introduction



Mega Tech of Oregon provides both discrete and end-to-end manufacturing services for a wide array of industries. We collaborate with our clients in all aspects of the process from the design to the final, fully compliant product.

Once you're ready for production, we can make modules or assemble the complete product in short or long runs. Our internal production capabilities include assembly of printed circuit boards, wire and cable harnesses, mechanical devices, and complete integration into a final product. At the end of the line, we can ship the finished product to you, your supply depots or your customers.

We also have well established partners, affiliates and associates who can perform applications beyond our internal capabilities should your product require it.

When you outsource your manufacturing to Mega Tech of Oregon, you can rely on us to handle the complete supply chain if desired. We will help streamline your processes by building a plan around a defined outcome that focuses on what you need, when you need it and where you need it.

If you don't see what you need, please ask. Whatever your project, MTO will work smarter to make your job easier.

Who We Are



History

Mega Tech of Oregon started in 1988 in Corvallis, Oregon. From the start, we've helped customers meet their specific requirements, from product inception through engineering, design for production, assembly and delivery. Our electronics design and manufacturing experts have a vast depth of experience in make-to-order products, and we can add value at every stage of the electronics manufacturing process. Think of us as an extension of your own business' capabilities.

MTO Team

The Mega Tech of Oregon management team includes industry professionals with extensive, hands-on shop floor and management experience. At MTO, we take a common sense approach to getting the job done right. That means being smart and agile in working with you to find the best ways to solve engineering and production challenges. Our staff's education and backgrounds are varied, but we are unified in our drive for manufacturing excellence and your satisfaction, working smarter to make your job easier. See MTO team bios on our website.

What We Do [1]



MTO provides both discrete and end-to-end manufacturing/assembly services. These include:

- Engineering and design
- Supply chain management
- Assembly and integration
- Testing and programming
- Distribution
- Project management
- Value-added services

All processes are controlled by our Mega Tech Quality Plan, which is ISO 9001 registered, and all assemblers and operators are certified under the IPC-A-610 standards. MTO also maintains a full-time certified trainer on staff who in turn provides ongoing training as necessary to maintain individual IPC certification.

Engineering and Design

Because of the diversity of our client's needs, MTO has ongoing relationships with a broad range of world-class engineering talent. Each of which has specialized expertise based upon years of experience. We match this expertise with our client's specific needs on a case-by-case basis.

- Product and industrial design
- Circuit design
- PCB layout
- Mechanical design
- Design for manufacturability
- SMT conversion
- Redesign for RoHS
- And more

What We Do [2]

Supply Chain Management

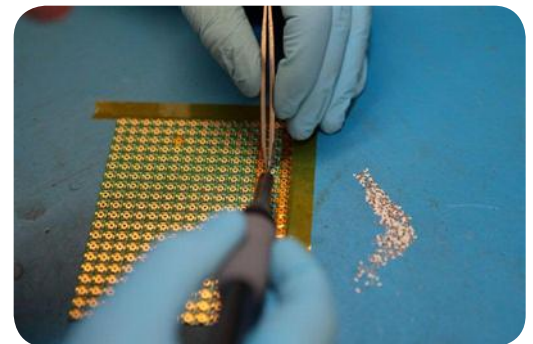
MTO provides consigned, partial and full turnkey assembly services. For those projects where our client doesn't supply all of the parts, MTO has a full-time materials team that sources parts daily from around the globe. Services include planning, purchasing, expediting and warehousing of components and materials. Our team monitors the lead times and keeps our clients apprised when it is time to reorder to avoid stock out situations. The team will also search for alternative sources for those parts that become obsolete or are difficult to obtain.

- Purchase factory direct or through franchised distribution
- Purchase from brokers with client's permission
- Set up bonded stock arrangements
- Assist in registering parts
- Optional consigned kit audit
- Full ERP system support
- And more

Assembly and Integration

For many of our clients, we build and integrate PCB assemblies and wire harnesses into standard or custom formed metal chassis or plastic enclosures of various types. These integrated assemblies or box builds are tested to full-function capabilities before shipping. Other clients only need printed circuit assemblies or cables and wire harnesses. MTO provides through-hole, surface-mount (SMT) and mixed technology as well as RoHS compliant processing when it comes to board-level assembly.

- Mixed SMT and through-hole technology
- RoHS compliant assembly
- μ BGA placement , inspection and rework
- Conformal coating and potting
- UV curing
- Mechanical assembly
- And more



What We Do [3]

Testing and Programming



Many clients require testing to assure the product is functioning correctly before being placed into service. MTO's technical team can help develop the fixtures and protocols as well as perform the actual test. Embedded intelligence is becoming the standard with many electronic devices, and these can require programming. The technical team works with our clients to assure that the correct program or firmware is loaded into the micro-processors using MTO's wide range of programming fixtures.

Distribution

Many of our clients have us build their products, inventory them in our warehouse and ship as directed. The shipping destination may be to the client's manufacturing plant, supply depots or their customers. MTO works with these clients to develop a manufacturing and stocking plan that keeps the supply chain as lean as possible while minimizing out-of-stock situations. In some cases MTO provides warranty and repair services for field returns.

Value-Added Services

The MTO team's experience provides a resource our clients can draw upon to improve their products and processes. These miscellaneous services are what really convert our efforts into real value for our clients. They can be as simple as vetting a new BOM for accuracy or providing quick-turn prototype assembly. They can be part of a process review to deliver a proposal that ensures our clients get the highest value from MTO's integrated services. These are a few of the additional ways we are always working smarter to make your job easier.

What We Do [4]

Project Management

MTO provides overall management services for many product development projects by acting as the general contractor. If expertise is needed beyond what MTO has internally, we pull together a team of outside experts. With our location in the Willamette Valley, we can access a broad array of world-class talent. MTO handles project details, including timelines and billing. This reduces the client's workload so they can focus on the product development.

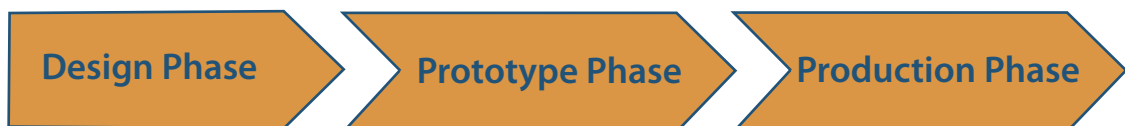
- Project administration
- Project mapping
- Assigning staff and teams with appropriate expertise
- Consolidated quote
- Single-point billing
- Timeline compliance



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General Design and Prototype Process **3 Basic Phases**



Industries Served [1]



CyberKnife® Robotic
Radiosurgery System

MTO has been providing custom solutions and product realization for established Original Equipment Manufacturers, venture-funded companies, entrepreneurial enterprises and many other types and sizes of businesses over the last two decades.

High Technology

Our high-technology clients range from factory automation products to industrial ink jet applications to solar power generation. Many of these clients require signing confidentiality agreements, so we are restricted to how much we can disclose on many products.

Consumer Products

We have worked with clients from initial design concept to reality. From high-performance audio gear to ski equipment, our technical, logistical and production staff have helped clients turn their ideas into products sold in the consumer market.

For example, MTO developed a programmable interval timer for use in training sports teams. We also produced the printed circuit assembly for another advanced training device, which was used extensively by the 2010 World Cup teams.

Telecommunications

For many years, MTO has been providing RF assemblies to the telecommunications industry. They're considered by some as black magic since they require a tolerance of the nuisances unique to RF circuitry, but our experience ensures they work reliably — no magic required. These assemblies are used extensively in cell phone towers, railroad tunnels and underground mines. We've also worked on teleconferencing applications, helping a client develop and prototype very-high-speed circuit boards with proprietary encryption capabilities.

Industries Served [2]

Recreational Vehicles



MTO provides the primary power distribution circuit assemblies for one of the country's largest coach manufacturers. We have been supplying controls for slide outs, step controls and leveling systems for more than 10 years. We have also built prototype printed circuit assemblies for a coach manufacturer as part of its effort to increase fuel efficiency.

Transportation

For clients in the trucking industry, MTO provides integrity testing devices for brake and lighting systems used by large fleets and the military. We also produce on-board truck scales and systems monitoring devices for several other transportation clients. For clients in the aviation industry, we manufacture environmental controls, and external lighting control systems for companies including Gulfstream and Korean Air.

Medical

Major advancements are being made in the field of MRI research and assessment tools. MTO has been working for a client that is on the forefront of overcoming the effect that magnetic noise emanating from an MRI has on an EEG machine.

We're also working with another leading-edge client in developing and refining a device used to irradiate tumors. This advancement will help reduce the impact on cancer patients by more precisely targeting the tumor.

Industries Served [3]

Industrial and Forest Products



Our clients in these segments provide highly technical processing equipment for rugged heavy industrial applications. One of these provides Factory Mutual[®] certified spark detection and fire suppression equipment for pneumatic conveying systems.

Other clients combine leading-edge vision, motion control and proprietary optimization algorithms to determine the quality of wood fiber by its optical properties. This information is then processed to determine what portions of the wood should be automatically cut out for scrap. MTO also provides control circuit boards used in metal detection.

Precision Agriculture

MTO clients are on the cutting edge of agriculture, deploying wireless networks to help farmers monitor their crops in real time and optimize their yields. In one example a wireless data collection systems monitors numerous points within the field. Data is collected via wireless mesh networks, GSM, CDMA and satellites. The field then receives a customized watering schedule based on this real-time data. This allows farmers to provide sufficient water for their crops, while not overusing their allocated water for irrigation.

Major Equipment and Tools [1]



Below is a partial list of equipment we use in the manufacture of PCB assemblies, cable and wiring harness assemblies, electronic box builds and other electronic products. Top-notch equipment is important, but it is the people at MTO who make the difference.

SMT Equipment

- Phillips Topaz pick & place machines
- Quad pick & place machines
- Screen printers
- Conceptronics forced-air convection oven
- Quad convection oven
- Super Mole gold thermal profiler

Through-Hole Equipment

- Nu/Era wave soldering stations
- Stone flux applicator
- Lead forming equipment
- Rework stations
- Nitrogen gas shield soldering stations

Major Equipment and Tools

[2]

Automated Conformal Coating and Dispensing Equipment

- 650 PVA fully automated, high-production coating and dispensing machine
- 250 PVA automated, small-batch coating and dispensing machines
- UV curing conveying oven

BGA Rework and Inspection Equipment

- ERSA scope
- ERSA infrared rework system

Test Equipment

- Checksum analyzer (bed of nails)
- Digital multimeters
- Cable analyzer
- Data analyzer
- Bench power supplies
- Function generator
- Oscilloscope
- Torque analyzer

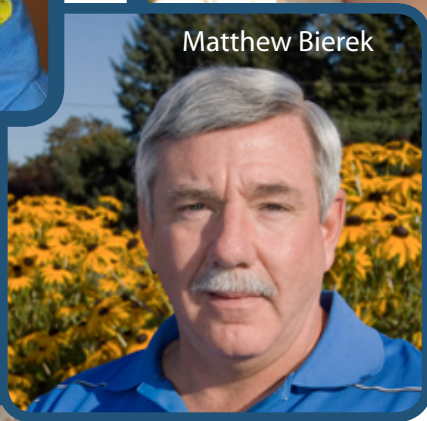
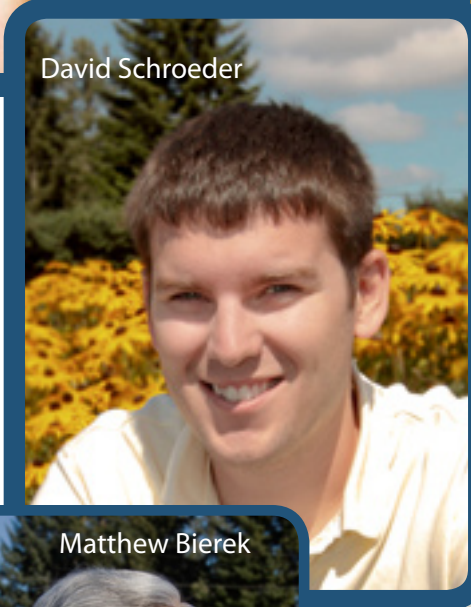
Quality Control Equipment

- Automatic optical inspection system
- Inspection stereo-microscopes
- FOV 40x microscope

Miscellaneous Equipment and Systems

- Device programmer with an array of plug-in modules
- Aqueous cleaner
- Gerber CAM program
- Fully integrated ERP system
- Schleuniger Omni Strip 9450

MTO Team



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