ACHB

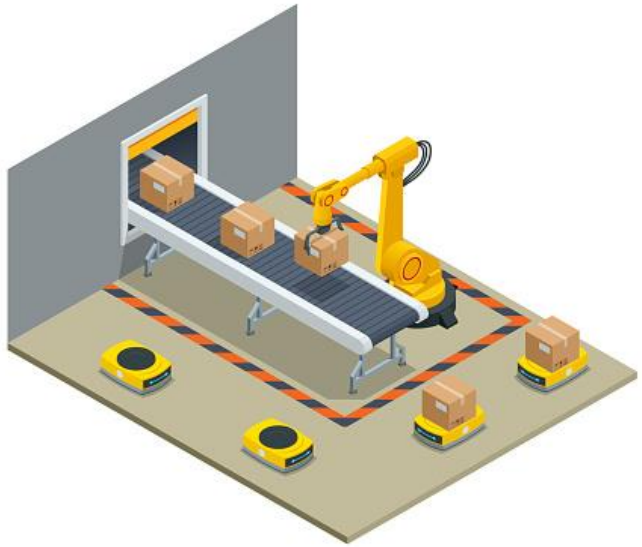
Your Innovation Partner

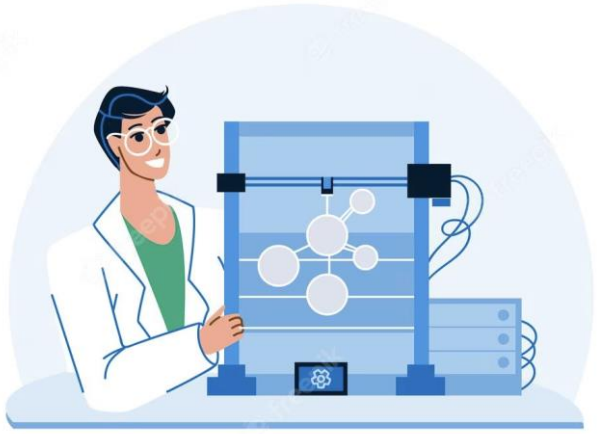
“Solving Problems Through Design Collaboration”

25 Years with over 1,000 Products

Target Industries

- Medical
  - Point of Care
  - Various applications
- Robotics
- Laboratory





Services

ACHB

Product Design & Engineering

We have put in place a unique system developed throughout our more than 20 years of deep manufacturing experience that ensures the optimum outcome for our clients. We call it *Manufacturing Plus* and it consists of: concept and specification development, engineering, regulatory compliance, IoT design, and business development support.

PLAN

- Define point of differentiation
- Identify key factors for differentiation
- Set launch timing
- (Re)assess biz priority
- Confirm budget

PoC

- Select technical platform
- Decide PoC execution team
- Assess technical feasibility
- Check plan viability

EVT

- Define test plan
- Select team
- Confirm SOW
- Decide design & develop team
- Define detailed spec
- Identify key component and supplier
- Verify test outcome
- Verify target cost
- Check plan viability

DVT

- Define test plan
- Revise spec
- Confirm cost
- System validation
- Confirm Spec
- Check plan viability
- Consolidate RC required documents
- Clinical trials

PVT

- FDA/TUV audits
- Pilot production transfer
- Confirm production process
- Confirm quality standard
- Confirm production efficiency

LAUNCH

- Hand off

Design For Manufacturing

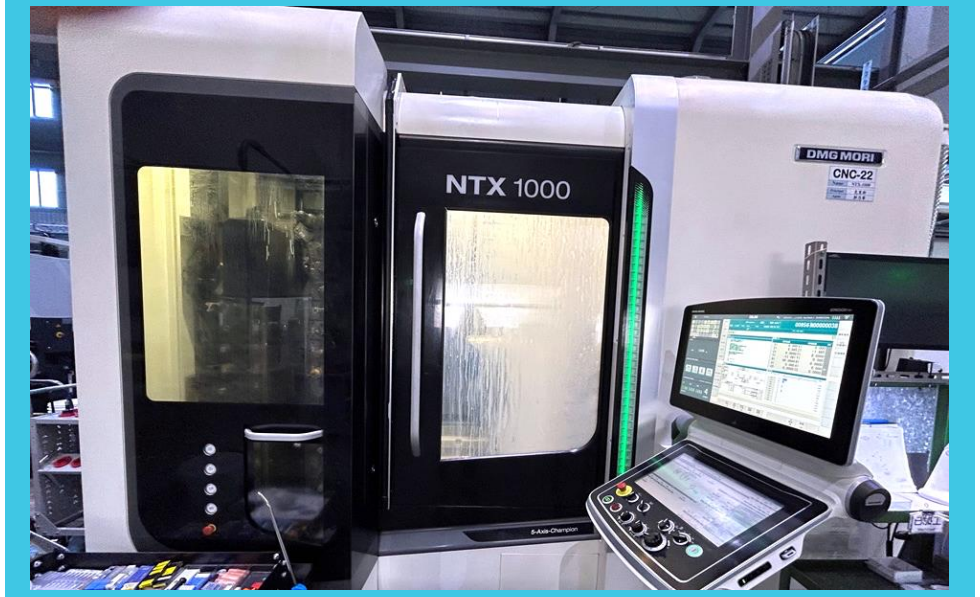
Our cutting-edge design for manufacturing capability integrates innovative engineering design principles with an optimized production processes, ensuring not only the creation of high-quality products but also cost-effective and efficient manufacturing solutions.

1. **Simplicity in Design**
   - Minimize components
   - Use standard parts
2. **Design for Ease of Manufacturing**
   - Optimize assembly processes
   - Minimize complex geometries
3. **Materials Selection**
   - Choose readily available materials
   - Consider properties and costs
4. **Design for Cost Reduction**
   - Standardize components
   - Minimize waste
5. **Assembly Considerations**
   - Modular design for efficiency
   - Design for automation
6. **Tolerance and Fit**
   - Define necessary tolerances
   - Choose appropriate fits
7. **Design for Testing**
   - Include built-in testability
   - Utilize prototyping for early issue identification
8. **Environmental Considerations**
   - Ensure compliance with regulations
   - Consider eco-friendly materials

Manufacturing & Testing

Precision CNC machining is where we started in this business and we specialize in crafting components used in the most precise medical equipment, robotics, and laboratory devices that often require tolerances as fine as 0.001 mm.

- **Rapid Prototyping**
  - 3D printing
  - Building proof-of-concept
  - PCB design and prototyping
  - Mock-up mold design
- **Mass Manufacturing**
  - CNC Machining & Turning
  - Fabrication
  - Plastic Injection Molding
  - Micro-Deburring
  - Electromechanical Assemblies
  - Critical Clean
  - Bonded manifold
  - Plastic mold design and fabrication



Experts in machining the materials that are the most difficult to work with, particularly titanium and nickel alloys such as stainless steel 15-5PH and 17-4PH, copper, brass, as well as nylon and other plastics.

- **Testing**
  - Pressure & Vacuum Testing
  - Leak Test
  - Pull/Bond Test
  - Functional Test
    - PCBA Test
      - Reliability Test
      - Functional Test
    - Aging Test
    - Packaging Test (fall, shake, impact)
    - IP64 Test
  - Resistant Test

Electrical Engineering

Custom Electronic Design – Engineering service to design custom PCB layouts and PCBA designs and fabrication for specific applications, miniaturization, power efficiency, and functionality.

- **Advanced Electrical Engineering**
  - Power distribution & load planning
  - High voltage engineering
  - Power quality analysis
  - Electrical control systems design
  - Error proofing
  - Data acquisition systems
  - EMC compliance

Installation

Installation of customers' sensors, transmitters, controllers, and actuators

Pre-calibration/calibration of Instrumentation

Adjusting the instrument settings to match a known standard. This is especially important for measurement instruments that monitor variables like pressure, temperature, flow, and level.

Loop/functional testing

Installation of sensors, transmitters, controllers, and actuators

Upgrades and Retrofits

integration of new components or systems into existing setups.

Thank you!

ACHB, Support Your Innovation.