

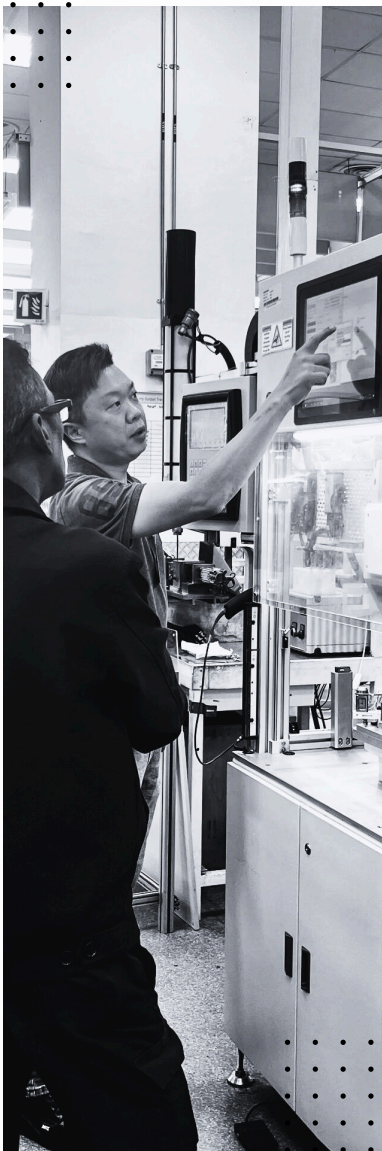
# TRAINING CATALOGUE

INDUSTRIAL SKILLS • MANUFACTURING EXCELLENCE • WORKFORCE UPSKILLING

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# About us



Preston Technology Sdn Bhd is a Penang-based provider of industrial training and assembly solutions. We specialise in precision assembly systems, digital traceability, and practical manufacturing capability development.

We help factories strengthen process consistency, quality assurance, and human-machine integration through hands-on, industry-aligned programmes.

## OUR SERVICE

- Industrial Training & Capability Development
- Technical Integration
- Precision Assembly & Automation Systems

# The **Six** Layer Industrial Capability Framework



## A Progressive Manufacturing Skill Framework

Our training programmes are organised into six capability layers, providing a clear and progressive development path for modern manufacturing teams. Each layer focuses on practical, industry-aligned skills essential for **today's** factory environment.

1. Mechanical Assembly Skills
2. Electrical & Controls Fundamentals
3. Digital Traceability & MES Awareness
4. Quality & Inspection Essentials
5. Workcell Efficiency & Process Flow
6. Systems Integration & Operator Capability

# Training Programmes Overview

Our industrial training programmes follow a clear, structured progression designed to remove operational obstacles, build process clarity, and strengthen hands-on manufacturing capability. Each module targets a specific bottleneck commonly found in factories – ensuring your workforce becomes more precise, **confident**, and production-ready.

## 1. Press-Fit Technology Essentials

Correct assembly fundamentals to eliminate force-related errors and improve process **consistency**.

## 2. Torque Tools & Fastening Basics

Strengthen fastening **discipline** through proper tool selection, torque accuracy, and error-proofing skills.

## 3. Digital Traceability & MES Awareness

Reduce hidden workflow issues by improving production data visibility, operator **traceability**, and digital compliance.

## 4. Quality & Inspection Foundations

**Enhance** quality judgment through practical defect identification, measurement basics, and visual inspection skills.

## 5. 5S & Workplace Efficiency

Remove workplace obstacles by **improving** layout flow, organisation, and operational discipline

## 6. Workcell Process Understanding

Build operator capability in workflow sequencing, cycle-time awareness, and workstation **optimisation**.

# Press-Fit Technology Essentials

Duration: 1 Day

Delivery: Hands-on / On-site Factory Training

Category: Mechanical Assembly Skills (Layer 1)

## Course Description

A practical, hands-on programme designed to equip operators and technicians with essential knowledge of press-fit assembly. Participants learn correct part alignment, force control, safety practices, and troubleshooting methods commonly used in **modern** precision manufacturing.

## Learning Outcomes

Upon completing this course, participants will be able to:

- Understand the fundamentals of mechanical press-fit joints
- Perform basic press-fit setup and alignment
- Identify incorrect fits, defects, and process deviations
- Apply safe operation practices to avoid part or tool damage
- Interpret force-distance characteristics for quality verification
- **Execute** a consistent and repeatable press-fit operation



## **Who Should Attend**

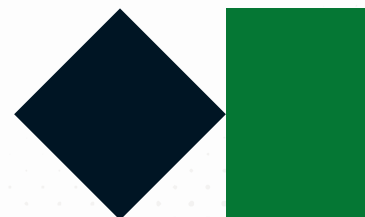
- Production Operators
- Assembly Technicians
- Line Leaders / Supervisors
- QA/QC Personnel
- New hires in mechanical assembly roles

## **Tools & Systems Covered**

- Mechanical & Pneumatic Press Systems
- SCHMIDT® PressFit Concepts (Non-commercial, technical only)
- Press Tooling & Fixtures
- Force-Distance Curve Basics
- Assembly Jigs & Locator Pins

## **Training Methodology**

- Instructor-led theory (compact, industry-relevant)
- Hands-on machine practice
- Process simulation using actual workpieces
- Demonstrations of defects & failure modes
- Mini-assessment to ensure skill transfer



# Torque Tools & Fastening Basics

Duration: 1 Day

Delivery: Hands-on / On-site Factory Training

Category: Mechanical Assembly Skills (Layer 1)

## Course Description

This practical course introduces operators and technicians to **correct** torque application, tool handling, and fastening quality. Participants learn how torque tools work, why torque accuracy matters, and how improper fastening can create product failures or rework issues in manufacturing.

## Learning Outcomes

Upon completing this course, participants will be able to:

- Participants will be able to:
- Understand the fundamentals of torque, angle, preload & fastener behaviour
- Select the correct torque tool for different fastening tasks
- Apply torque safely and accurately
- Identify common fastening defects (stripped threads, cross-threading, under/over torque)
- Verify torque using basic measurement tools
- Perform simple troubleshooting and error-**prevention** techniques



## **Who Should Attend**

- Production Operators
- Assembly Technicians
- Line Leaders / Supervisors
- QA/QC Personnel
- Maintenance Technicians (Beginner Level)
- New hires in mechanical assembly roles

## **Tools & Systems Covered**

- Manual Torque Wrenches & Screwdrivers
- Pneumatic / Electric Screwdrivers
- Torque Testers & Verification Devices
- Fastener Types & Applications
- Error-Proofing Concepts (Basic Poka-Yoke)

## **Training Methodology**

- Instructor-led theory (compact, industry-relevant)
- Tool handling practice using real components
- Live demonstrations of fastening defects
- Hands-on torque setting & verification
- Instructor-led theory with industrial examples
- Mini-assessment to validate competency



# Digital Traceability & MES Awareness

Duration: 1 Day

Delivery: Classroom + Practical Demonstration

Category: Digital Manufacturing & Data Fundamentals (Layer 3)

## Course Description

This course introduces participants to the fundamentals of digital traceability, production data flow, and Manufacturing Execution Systems (MES). It explains how data moves through the shopfloor, how traceability prevents quality escapes, and how operators **contribute** to a digital-ready production environment.

## Learning Outcomes

Participants will be able to:

- Understand the purpose and value of production traceability
- Recognise common data elements (part ID, batch ID, machine data, torque, force, timestamps)
- **Identify** traceability checkpoints in typical assembly workflows
- **Understand** the basic structure of an MES system
- Perform correct operator data entry and verification
- **Apply** proper scanner usage, system logging, and error-prevention methods

The screenshot displays the 'NICHII DATA COLLECTION SWVer: 1.0.0.8' interface. The main window has a menu bar with 'Files', 'Setting', and 'Access'. The PRESTON logo and website 'www.preston.com.my' are visible. The data entry form includes the following fields:

- WBS No.:** ABC123
- Model:** X5
- Module:** ENGINE
- Drawing No.:** PRESTON\_X5
- User ID:** ETHAN007
- Start Date/Time:** 2022-08-21 16:49:54.512

Buttons for 'Lot Start' and 'Lot End' are located below the Start Date/Time field. On the right side, a 'TOOL COM' section is partially visible, and a 'Process Ste' table shows a list of steps:

Step	Da
1	202
2	202
3	202
4	
5	

## Who Should Attend

- Production Operators
- Line Leaders / Technicians
- QA/QC Personnel
- Process / Manufacturing Engineers (Introductory Level)
- New hires in digital or Industry 4.0 environments

## Tools & Systems Covered

- Basic MES Screens & Input Interfaces
- Device-Level Traceability (press, torque, sensors)
- Workstation Data Flow & Checkpoint Logic
- Common Industry 4.0 Terms (simple explanation)

*(Note: Content is platform-neutral; no specific brand promotion.)*

## Training Methodology

- Real-world digital traceability examples
- Hands-on scanning & data entry simulation
- Demonstration of traceability errors & missing data cases
- Instructor-led walkthrough of simple MES workflow
- Practical mini-assessment

# Quality & Inspection Foundations

Duration: 1 Day

Delivery: Classroom + Practical Demonstration

Category: Quality & Inspection (Layer 4)

## Course Description

A practical introduction to quality principles and basic inspection techniques used in manufacturing. Participants learn how to **identify** defects, use simple measurement tools, and apply quality discipline to reduce rework, scrap, and customer complaints

## Learning Outcomes

Participants will be able to:

- Understand the role of quality in manufacturing processes
- **Identify** common defects (cosmetic, dimensional, functional)
- Apply proper measurement techniques to avoid parallax and handling errors
- Follow work instructions and inspection standards
- Communicate quality issues effectively to supervisors or QA



## Who Should Attend

- Operators & Technicians
- Line Leaders & Supervisors
- QA/QC Personnel (Beginner Level)
- New hires in production or quality roles

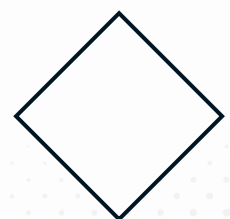
## Tools & Systems Covered

- Visual Inspection Techniques
- Basic Measuring Tools
- Go/No-Go Gauges & Fixtures
- Defect Samples & Reference Boards
- Work Instructions & Checklist Standards

*(Note: Content is platform-neutral; no specific brand promotion.)*

## Training Methodology

- Demonstration of real defect samples
- Hands-on practice with simple measuring tools
- Guided inspection exercises using jigs & fixtures
- Instructor-led explanations with factory examples
- Mini-assessment to confirm competency



# 5S & Workplace Efficiency

Duration: 1 Day

Delivery: Classroom + Practical Activity

Category: Workcell Efficiency (Layer 5)

## Course Description

A practical foundation course designed to help operators and technicians improve shopfloor organisation, reduce motion waste, and create safer, more **efficient** workcells. Participants learn to apply 5S principles in real production environments using simple, repeatable methods.

## Learning Outcomes

Participants will be able to:

- Understand the purpose and benefits of 5S
- Apply Sort, Set in Order, Shine, Standardise & Sustain in daily work
- Identify and remove workplace obstacles and motion waste
- Organise tools, materials, and workstations effectively
- Maintain consistent workstation discipline
- Support continuous **improvement** culture on the shopfloor





## Who Should Attend


- Production Operators
- Technicians & Line Leaders
- Warehouse/Material Handling Personnel
- Anyone involved in daily shopfloor activities

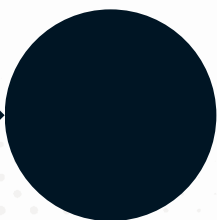
## Tools & Systems Covered

- 5S Visual Tools (labels, markers, indicators)
- Workstation Layout Concepts
- Basic Lean Concepts (motion waste, flow)
- Simple Standard Work Practices
- Workplace Checklists

*(Note: Content is platform-neutral; no specific brand promotion.)*

## Training Methodology

- Instructor-led explanation using factory photos
  - Group discussion & simple 5S simulation
  - Hands-on workstation organisation exercise
  - Before/After case walkthroughs
  - Mini-assessment to measure understanding
- 



# Workcell Process Understanding

Duration: 1 Day

Delivery: Classroom + Practical Simulation

Category: Workcell Process Flow & Operator Capability (Layer 5–6)

## Course Description

This course helps operators and technicians understand how a workcell runs from start to finish. Using simple simulations and real examples, participants learn how materials, tools, people, and information move through a station – and how small mistakes or delays can **affect** cycle time, quality, and overall output.

## Learning Outcomes

Participants will be able to:

- Understand how materials, tools, and tasks flow through a workcell
- Follow correct sequence of work and avoid unnecessary motions
- Identify bottlenecks, delays, waiting, and causes of slow cycle time
- Interpret simple cycle time and takt time concepts
- **Coordinate** better with upstream and downstream processes
- Support smoother flow and fewer disruptions at the workstation



## Who Should Attend

- Operators & Technicians
- Line Leaders & Supervisors
- New hires in assembly or production roles
- Anyone involved in workstation operations

## Tools & Systems Covered

- Workcell Layout & Line Balancing Concepts
- Fixtures, Jigs & Locator Tools
- Basic Cycle Time Calculation
- Material & Information Flow
- Work Instruction & Standard Work Basics

*(Note: Content is platform-neutral; no specific brand promotion.)*

## Training Methodology

- Workcell simulation using simple props or sample setups
- Scenario-based demonstrations (bottleneck, over-processing, incorrect sequence)
- Instructor-led walkthroughs
- Small-group practical exercises
- Mini-assessment to confirm competency



# Our Trainer



**CHANG I-YEN**  
Lead Industrial Trainer

## AREAS OF EXPERTISE

- Press-Fit & Mechanical Assembly
- Torque Tools & Fastening Quality
- Digital Traceability & MES Awareness
- Workstation & Workcell Design
- 5S, Efficiency & Shopfloor Optimisation
- Quality & Inspection Fundamentals

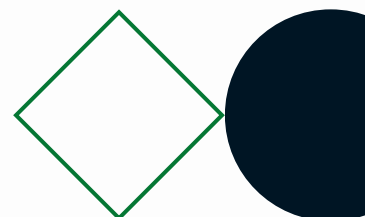
## TRAINING STYLE

Practical, factory-floor oriented, scenario-based instruction focused on strengthening capability, quality awareness, and process consistency.

## TRAINER PROFILE

Chang I-Yen is an industrial training specialist with over a decade of experience supporting manufacturing companies across Malaysia, Singapore, Vietnam, and the Philippines. His expertise spans precision assembly systems, digital traceability, and practical manufacturing capability development.

He has conducted hands-on technical training for operators, technicians, and engineers in electronics, automotive, EMS, medical devices, and general manufacturing environments.



# Why Choose Preston

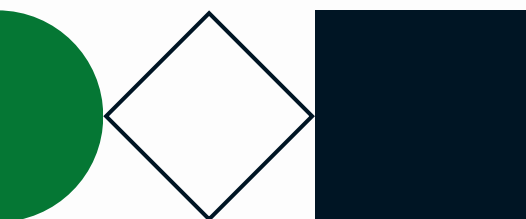
Practical, factory-focused training built for real production needs. We help operators, technicians, and line leaders strengthen consistency, quality, and process discipline.

## WHAT WE OFFER

- Real industry experience
- Hands-on, equipment-based learning
- Customised to your process & workcell
- Clear, simple explanations for operators
- Strong focus on quality and traceability
- Applicable across **modern** manufacturing lines

## INDUSTRY COVERAGE

- Electronics & EMS
- Automotive
- Precision Engineering
- Medical Devices
- Consumer Electronics
- General Manufacturing



# Training Delivery & Availability

Our programmes are designed for fast, practical upskilling with flexible scheduling to match your production needs. Training can be conducted at your facility or at Preston's training space, with full HRD Corp documentation prepared for eligible programmes.

## Delivery Modes

- On-site at client facility (preferred – real equipment, real scenarios)
- Preston Training Space / Temporary Setup (upon request)
- Remote pre-training briefing (optional)

## Schedule & Booking

- On-demand scheduling (no fixed calendar)
- Available Monday–Saturday
- Recommended booking: 2–4 weeks in advance
- Priority scheduling for multi-session programmes

## Training Duration

- Standard programme: 1 Day (8 Hours)
- Custom modules: ½ Day to 2 Days

## Class Size

- Recommended maximum: 15 participants
- Hands-on modules: Ideal 5–10 participants

## HRD Corp Claim Support

- Programmes submitted under HRD Corp SBL-Khas
- Provided documents:
  - Course outline
  - Trainer CV
  - Company registration & bank details
  - Attendance list template
  - Confirmation letter (upon request)
- Recommended submission timeline: 14 working days before training



# HRD Corp Claimability

## CLAIMABLE PROGRAMMES

All training programmes listed in this catalogue are HRD Corp claimable under SBL-Khas, subject to employer submission and approval by HRD Corp.

## DOCUMENTS PROVIDED

We provide all required supporting documents for HRD Corp submission, including:

- Official Quotation
- Detailed Training Outline
- Trainer Profile
- Attendance Record
- Certificate of Completion
- Invoice & Supporting Materials



## ADMINISTRATIVE NOTES

- SBL-Khas claims must be submitted through HRD Corp's e-TRiS system prior to training.
- Approval is granted at HRD Corp's discretion based on employer eligibility.
- Programmes can be conducted on-site or off-site.
- Preston Technology is a registered HRD Corp Training Provider.

# Training Engagement Guidelines

## 1. Programme Confirmation

Training dates are confirmed upon receipt of an official Purchase Order (PO) or written confirmation from the client.

## 2. Payment Terms

- Full payment is due within 30 days from the date of invoice.
- For new clients, upfront payment may be required before the training session.

## 3. Cancellation & Rescheduling

- Cancellation or postponement must be provided at least 7 working days before the training date.
- Changes made within 7 working days may incur a 50% rescheduling fee.
- No-show on the training day will be charged 100% of the agreed training fee.

## 4. Replacement of Participants

Clients may replace participants at no additional cost, provided the replacement meets the programme's prerequisite (if any).

## 5. Training Venue Requirements

The client is responsible for providing a suitable venue for training sessions, including:

- Projector / LCD screen
- Tables & seating for participants
- Sufficient power sockets
- Access to the production area (for industrial walk-through modules)

If Preston provides portable equipment (e.g., torque tools, demo jigs), advance notice is required.

## 6. Safety & PPE Compliance

For sessions conducted on the shopfloor:

- Participants must wear appropriate PPE (safety shoes, ESD wear, safety glasses, etc.).
- The client must ensure the work area is safe, clean, and compliant with internal EHS policies.

## 7. Intellectual Property

All training materials, slides, worksheets, and tools are the intellectual property of Preston Technology Sdn Bhd and may not be reproduced or distributed without written permission.

## 8. Certificate of Attendance

Certificates will be issued to participants who:

- Complete the training programme, and
- Fulfil minimum attendance requirements (typically 75–100%, depending on module).

## 9. HRD Corp Requirements (If applicable)

For HRD Corp claims:

- Client is responsible for submitting grant applications.
- Training reports and attendance sheets will be provided after the session.
- Preston will support post-training documentation upon request.

## 10. Liability

Preston Technology is not liable for:

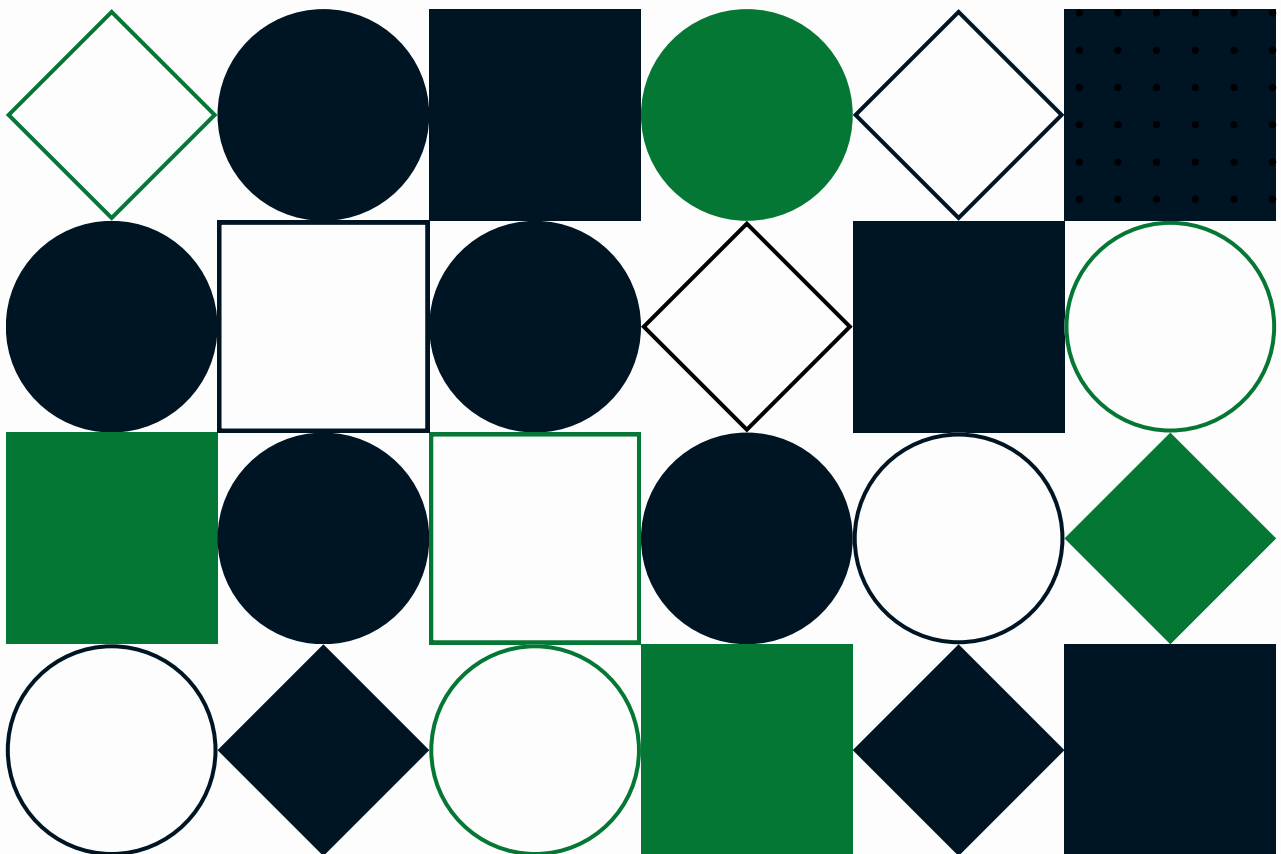
- Any loss of production arising from training participation,
- Any accidents caused by client-owned equipment,
- Any issues arising from incomplete or incorrect client briefings.

## 11. Validity

All training fees and proposals are valid for 60 days from the date issued unless otherwise specified.



# Contact Information



BRIDGING MACHINES, SYSTEMS & **PEOPLE.**

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## **Preston Technology Sdn Bhd**

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