

## Introduction

### About Valingro Group

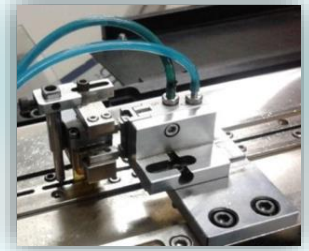
- Valingro facilitates, develops & build Enterprises girded by Values
- Creating Companies concentrating on Global Competitiveness, Leveraging global Opportunities, Acquiring global capabilities
- Philosophy: Business Beyond Profit

### About ChipTest Engineering

- An associate of Valingro, ChipTest is a Semiconductor Test Company
- Established in 2005, ChipTest has 2 BUs: Test Engineering and Wisteria
- Over 30+ Years of Test Engineering Business Experience
- Operations in India, Singapore & Malaysia
- Long-Term Value-Added Partnership Business Model

### About Wisteria

- Wisteria is the Hardware Products & Automation Business Unit of ChipTest
- Solutions for Semiconductor, Automotive, Electronics & Process Applications
- Integrated team of wide expertise under one roof



## Solutions

- **Semiconductor Industry** – Gravity Feed Handlers, P&P Handlers, Handler Conversion Kits & Test Sockets, Chemical Management system in Fab Houses
- **Generic Solutions** – Expertise in SPM development, P&P Solutions, Poke yoke systems, Screw & Rivet Feeders, OEE Dash Boards, End of line Barcode Validator, Vision inspections, SMS Alert / Control System
- **EMS Industry** – Robotic P&P Solutions, Controller Board Multi-Site Test System, Multi-Site Flash programmers
- **Automotive Industry** – Stator/Rotor Coil Test System, Sensors Functional test system, Sleeve Shrinking System, Grommet Puller, Applicators, Jigs
- **Lift Industry** – Auto liquid Dispensing System, Auto Measure & Cut System, Rope Tension FPS, Magnetic Table



## PIC & PLC Capabilities

- 8/16/32 Bit Microcontrollers – 8051, PIC, ARM, Atmel, NXP
- Embedded Tools – MPLAB Assembler, 8051 Assembler, Atmel Studio, Keil, GNU, Arduino, CCS C
- OS – Windows Embedded, Raspberry, Embedded RTOS, Windows & Linux
- Wired Communication-I2C, SPI, RS232/485, USB, MODBUS, ETHERNET, TCP/IP, GPIB, PROFIBUS
- Wireless Communication – GSM, GPRS, GPS, BLUETOOTH, ZIGBEE, RF, WIFI
- Robotics – Yamaha, Mitsubishi, JMC, Motor Controls – AC& DC motors, Stepper, Servo, Step-Servo
- PLC - Siemens, AB, Delta, Mitsubishi & HMI - Siemens, AB, Delta

**Pick & Place Tri-Temp Handler**



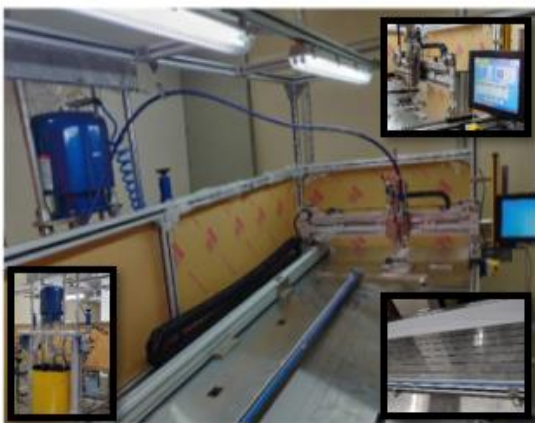
- Automatic Pick & Place System with TCU Plunge
- Improved Efficiency with Precise Device Insertion
- Variety of Device sizes with same Base
- Easy Conversion Capability for different packages
- Fast and User-Friendly Touch Screen operations
- Real time Error Monitoring / Device Status display
- Remote System Operation & Monitoring

**Controller Load Testing and Flashing System**

- Integrated Functional Test and Flashing system for Controller Boards
- Voltage, Current, Speed, Resistance measurements and flash programming
- Six Fixture Pallets with 6 boards per Pallet for continuous operation
- Ergonomic design to test dual Hexa boards at a time
- Poka-Yoke features for loading and unloading of boards
- Auto barcode label generation for Good Boards
- Rugged Industrial panel PC
- User friendly operation with Biometric login
- Recipe based system for different products handling



**Auto Liquid Dispensing System**



- Automatic Dispensing System for glue, grease & lubricants
- 3-Axis Robot for X-Y-Z operations
- Dual Output Nozzle for high Output
- Variable Worktable sizes for handling various products
- Recipe based different products handling
- Rugged built in System for Industrial applications
- Built in Safety Features and Fool proof systems
- Touch based IPC for Easy Access
- Automotive, Solar, Chemical, Food & elevator industrial applications

### Engine Marking Machine

- PSMS (Pin Stamp Marking System) Permanently prints as per user recipe selection
- Single Pin Marking system
- 100mm x 150mm marking window
- Pre-positioning done with 3-axis robot
- Multi Variant handling for n number of Serial number generation
- Poke Yoke systems for Product present and removal
- Curtain Sensor for safety measures
- Easy touch screen operation and recipe teaching
- Biometric login and Mail notification for idle time



### Auto Screw Feeder System



- Automatic feeding to save screw picking
- Support Electric and Pneumatics screw drivers with even torque
- Faster operating speed up to 20-30 pieces of screws per minute
- Applicable for 2.3mm-6.0mm screw. Fiber optic control intellectual-type feeding. Single & Dual Output model available
- Optional Screw inspection method integration

### Auto Riveting Machine - ARM

- Auto Riveting Machine automatically transports and inserts the rivet into the rivet gun nozzle.
- Auto sort and delivering rivet by vibrating system.
- Standard Blind and Pop rivets usage
- Specialized design to guide and rank the rivet
- LCD display for parameter setting and Rivet count
- Application-Automobile sector, Elevator Industries, EMS Industries, sheet metal etc



### Fool Proof Chemical Management System



- Fool Proof Chemical Management System (FPCMS) to monitor and avoid wrong usage of chemicals in Fabrication/Production line
- Poke-yoke System designed with One Master and Multi-Slaves
- FIFO, expire date monitoring, thawing time monitoring, Inventory monitoring, E-mail alerts for wrong usage, Pre expire alerts, log maintenance features
- Ethernet and Wi-Fi facility provided for live status update
- Chemicals details fetched by OCR & Barcode and stored in Master System
- Easy touch screen operation and recipe teaching



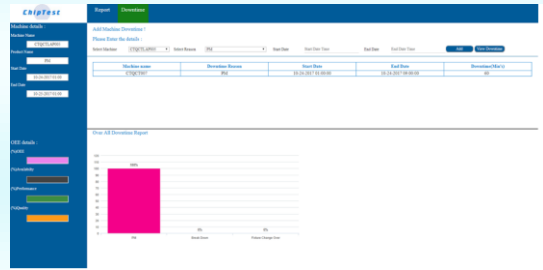
**Stator Coil Tester**



- Vehicle Stator Coil Test System
- Single, Dual, Three phase coil test capability
- Resistance, Inductance Testing
- Impulse – Area, differential area, corona Testing
- Kelvin type accurate R & L measurement
- Optional testing modes - L, R & Impulse
- Fast & accuracy measurement with Fool proof System for Reject Coils
- Auto barcode label generation for Good Units
- User friendly operation with Biometric login

**OEE Dash Board**

- Graphical presentation of overall production data
- Real time data Push from machine to Server dashboard
- Separate dashboard for Downtime report view
- User friendly - very easy to get started
- Enhanced version of report view over Internet and Mobile App

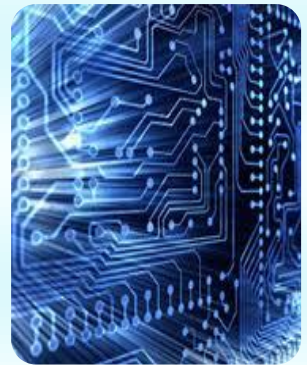


**Professional Team**



- Well Experienced and modernized Leadership
- 25+ Years of Expertise in Production and Maintenance field
- Creative and energetic Personnel's under one roof
  - PCB design team
  - Mechanical design team
  - Embedded team
  - Software team
  - Integration team
  - Quality team

**PCB Development**



**Quality Methodology**



- Quality Controlled Process flow approach
- Well defined Process Flow documents & Check-lists
- Project Scheduling & Milestone Tracking