



Assembly Testing Fixture Robotics Vision System Automations

MAITRA AUTOMATION

Complete Solutions Provider for

**Industrial Automation, Assembly Solutions & Material
Handling Equipment**

About us



Creative Start

- Had a humble beginning in 2016
- To focus on the needs of Automation manufacturing industry



Infrastructure

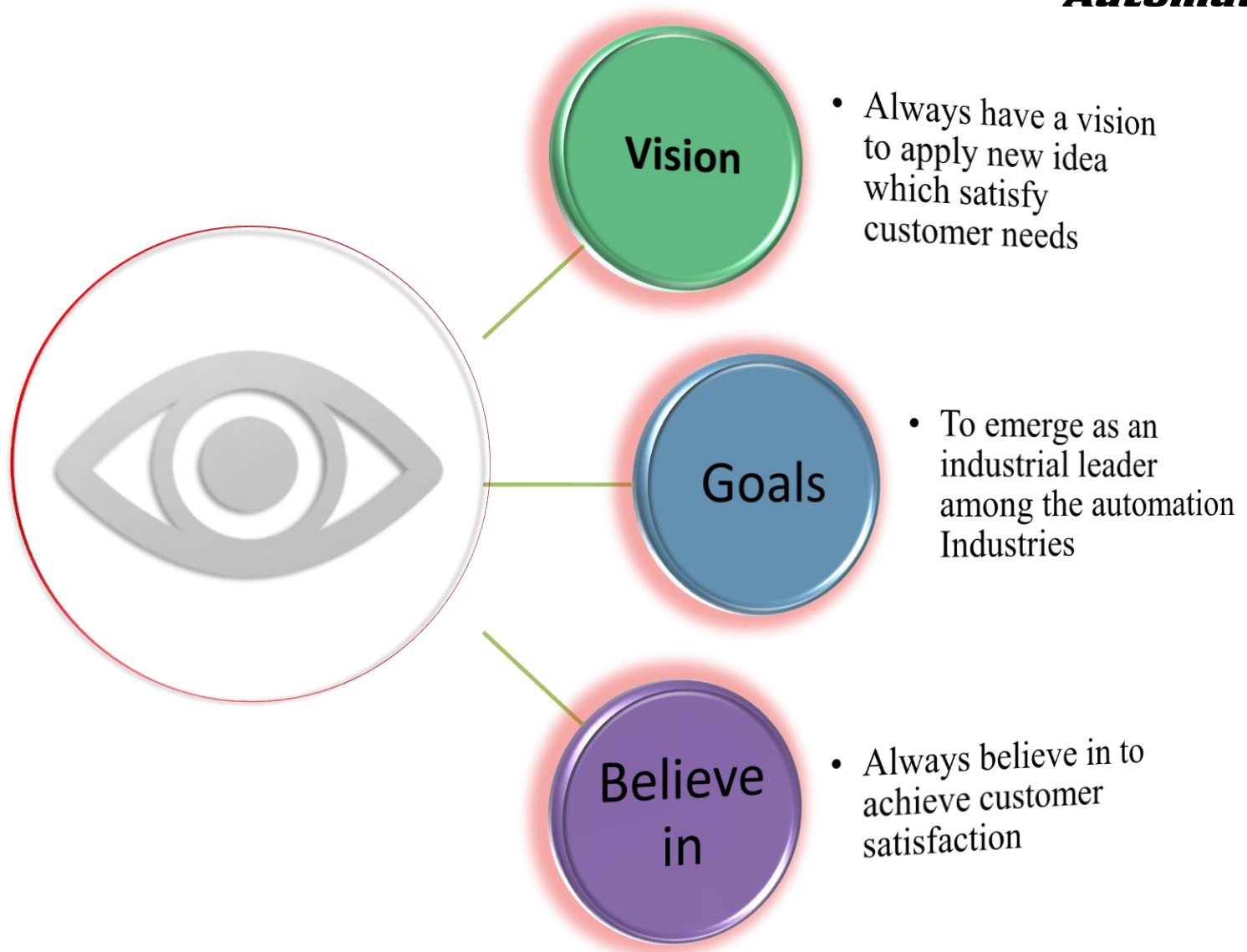
- Over an area of @ 2500 + 550 (Office) sq. ft
- Located in Bhosari MIDC ,Pune



Team

- We are proud to have 20+ Experienced Professional from all streams

Our Values



Organizational Structure



Director
(Founder)

Functional Manager
(Mechanical Dept-1)

Account & Admin
Executive-1

Functional Manager
(Automation &
Electrical-1)

Design Engineer -2

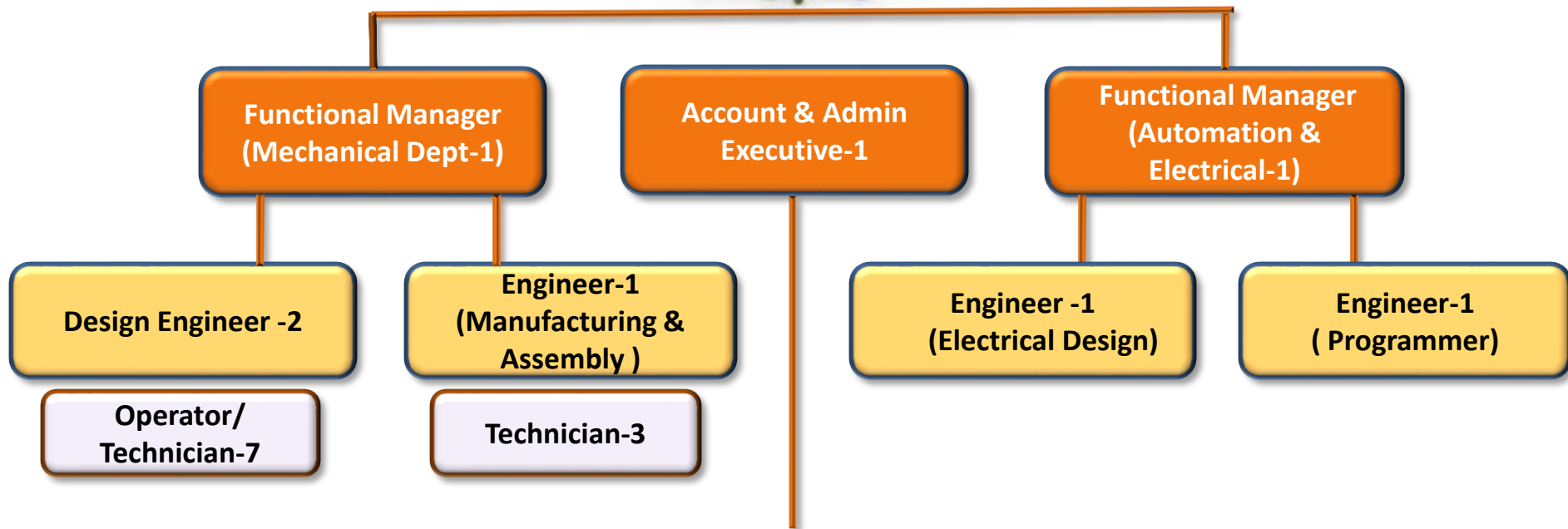
Engineer-1
(Manufacturing &
Assembly)

Engineer -1
(Electrical Design)

Engineer-1
(Programmer)

Operator/
Technician-7

Technician-3



Infrastructural Platform



- Machine Shop well Equipment with following machines

Machine 1- Vertical Machine Centre
Machine Travel Size-
X-1050 Y-610 Z-610



Assembly

Testing Fixture

Robotics

Vision System

Automations

Infrastructural Platform



Machine 2- Vertical Machine Centre Machine Travel Size- X-600 Y-450 Z-500



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Machine 2- Universal Milling Machine

Machine Travel Size-
X-950 Y-350 Z-350



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Machine 3- M1TR
Machine Travel Size-X-
950 Y-360 Z-300



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Machine 4- Lathe
Machine Travel Size-
X-600 Dia -60mm



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Infrastructural Platform



Machine 5- Surface Grinding Machine
Machine Travel Size-
X- 400 MM Y-250MM



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Automations

Infrastructural Platform

Machine 6- Cutting Machine



Machine 7- Welding Machine



Products and Types of Services

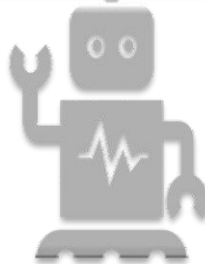
Assembly Automation.



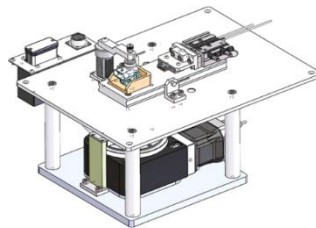
- Manual Assembly Line with all pokayoke
- Automated Assembly Machine.
- Automated Screw Feeding.



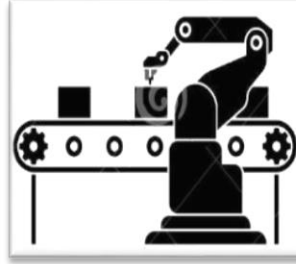
Testing Fixtures



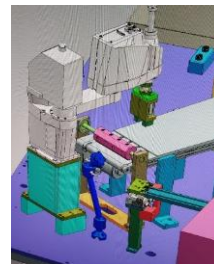
- Positive and negative Leak Test
- Blockage and Flow Test
- Continuity and Resistance Test
- Hi pot & Insulation Test



Robotics Automation



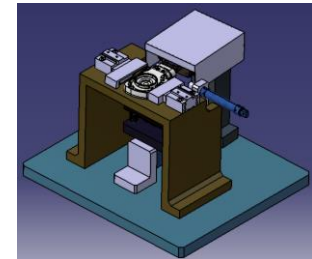
- Automated assembly of 2 and more child parts.
- Packaging and palletizing.
- Welding and deburring of components.



Vision System



- Vision inspection of any components
- OCR reading and tracing.
- Variant Identification and sorting.
- 2D ,QR codes decoding.



Mouth Piece Air-flow Resistance Check Station



Check Resistance Of Airflow On 20
LPM And 60 LPM



Assembly

Testing Fixture

Robotics

Vision System

Automations

Assembly Line :-QU2i IP Air Vent Assembly Line



Assembly

Testing Fixture

Robotics

Vision System

Automations

CTR LH & RH Knob Assembly



Assembly

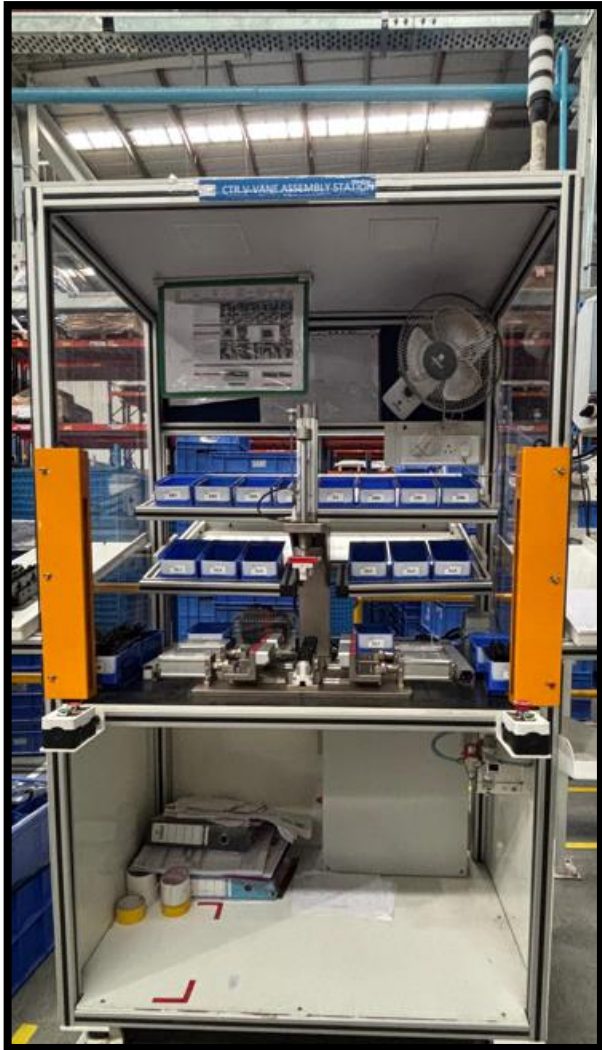
Testing Fixture

Robotics

Vision System

Automations

CTR V VANE Assembly



Assembly

Testing Fixture

Robotics

Vision System

Automations

CTR H Vane Assembly



Assembly

Testing Fixture

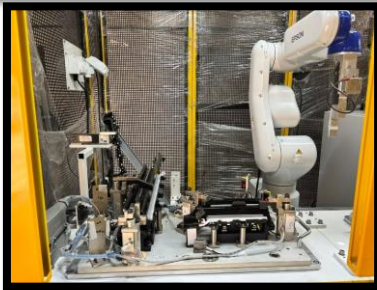
Robotics

Vision System

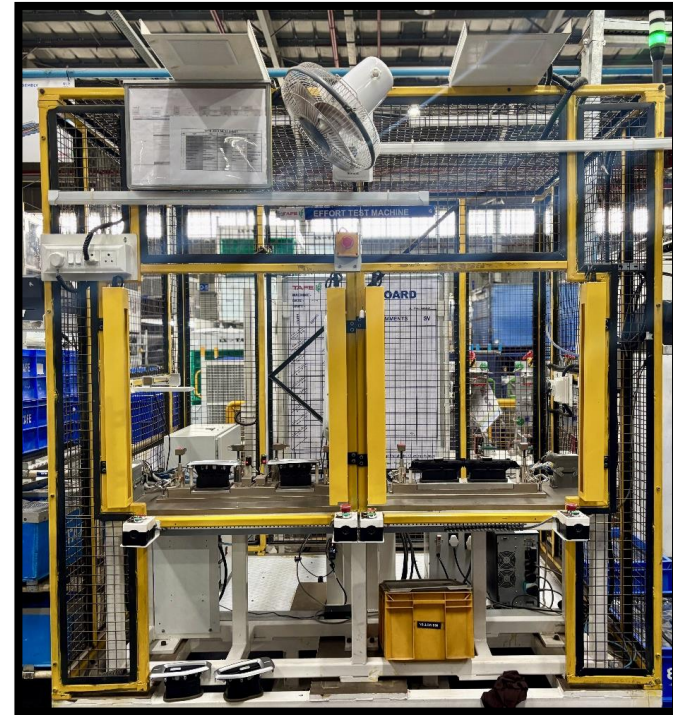
Automations

Efforts Test Machine

TATA SIERRA AIRVENT ETM



QU2I AIRVENT ETM



Assembly

Testing Fixture

Robotics

Vision System

Automations

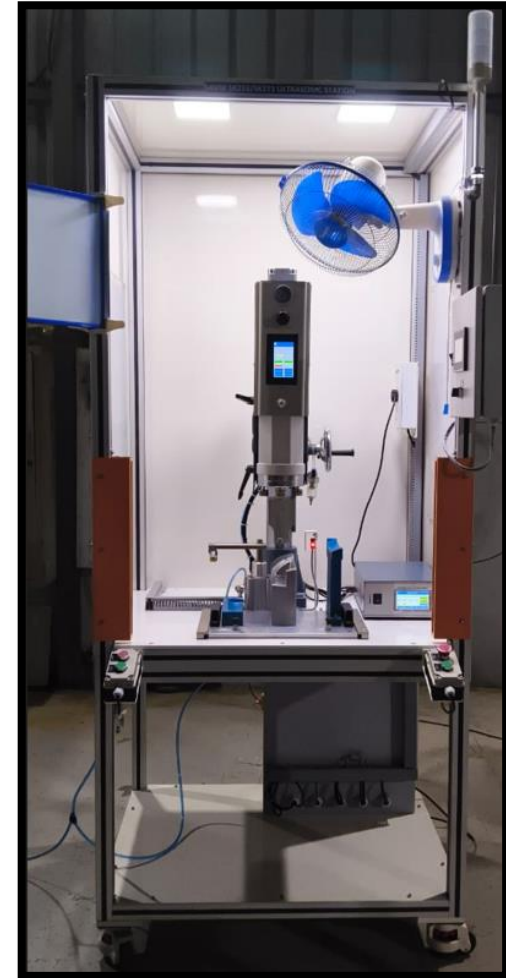
Ultra Sonic Welding Machines



Manual Ultra Sonic Welding Station



Auto Ultra Sonic Welding Station



Assembly

Testing Fixture

Robotics

Vision System

Automations

Hot Riveting Station



Assembly

Testing Fixture

Robotics

Vision System

Automations

Assembly Line :-Arm Rest Sierra Assembly Line



Assembly

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Robotics

Vision System

Automations

Leak Test Machine



Assembly

Testing Fixture

Robotics

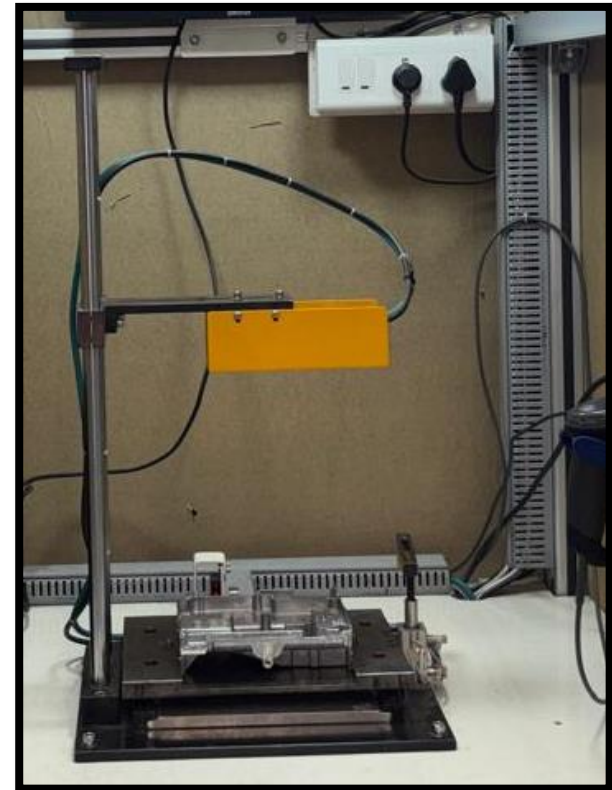
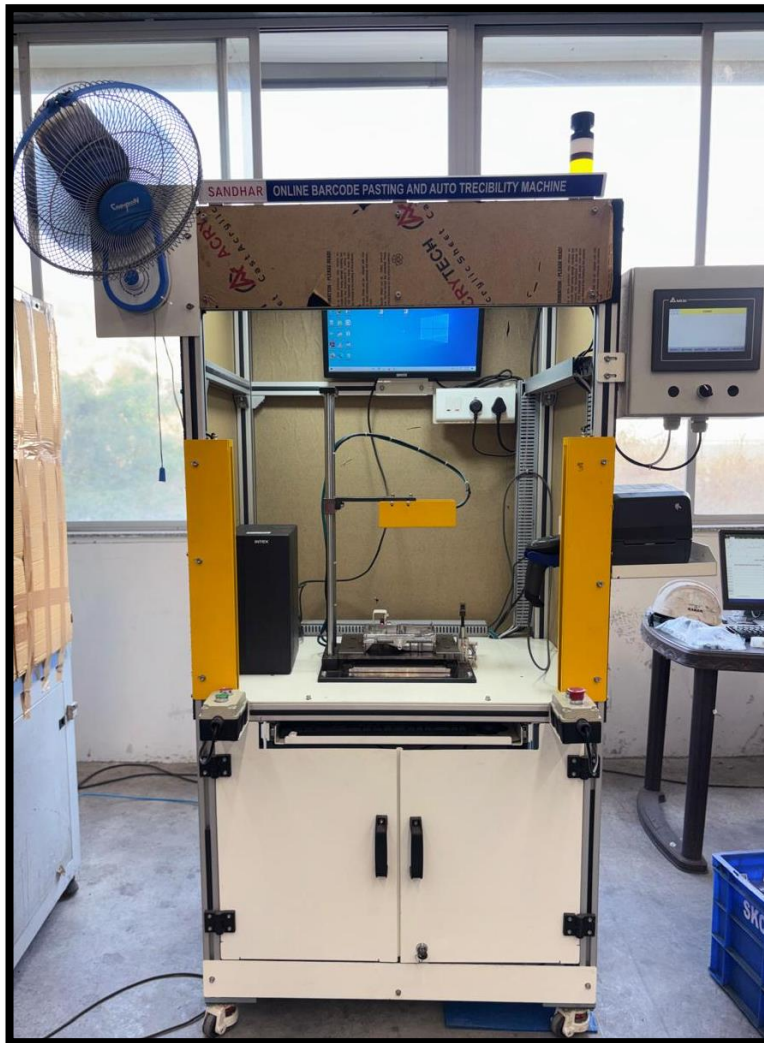
Vision System

Automations

Vision Station



Detect Variant + barcode
Pasting + Scanning



Assembly

Testing Fixture

Robotics

Vision System

Automations

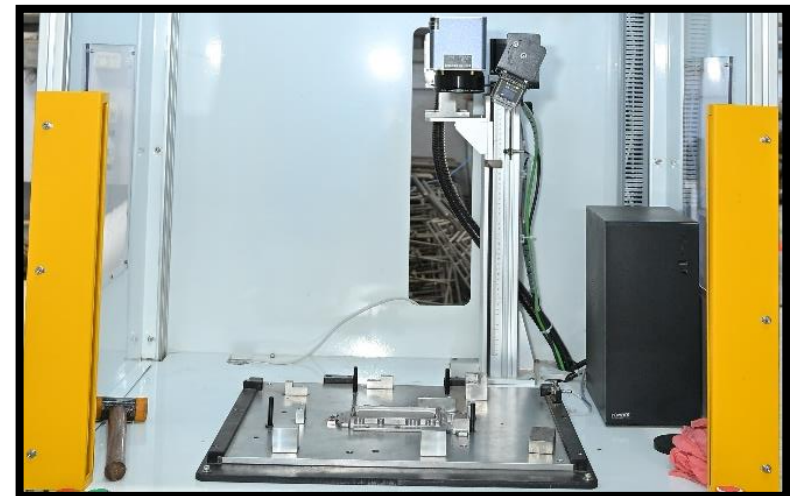
Laser Marking Machine



Automatic Travel As Per Part Variant.

Auto Laser Marking.

After Laser Marking Automatic Scanning QR Code.



Assembly

Testing Fixture

Robotics

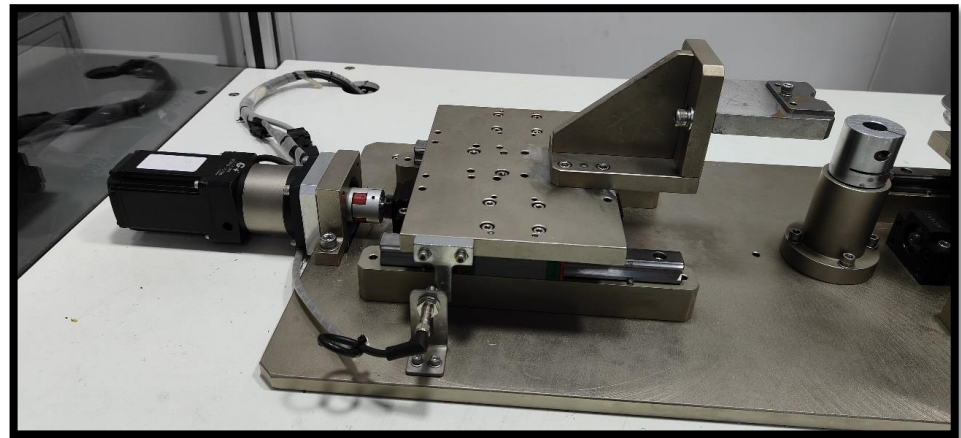
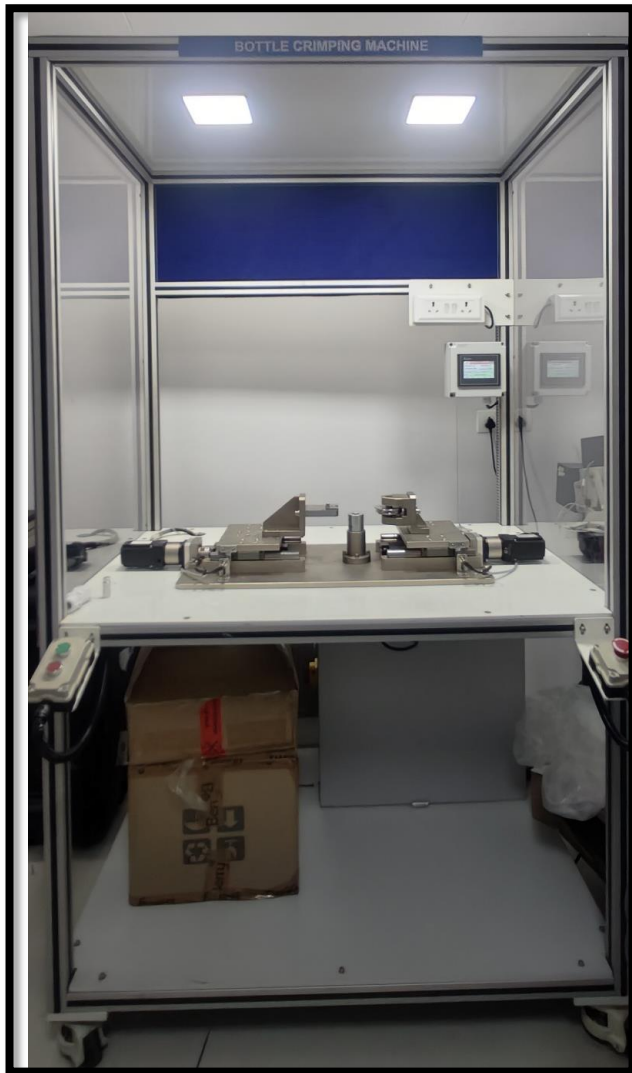
Vision System

Automations

Bottle Crimping Machine



**Mouth Piece Alu Bottle
Automatic Crimping
With Proper Shape**



Assembly

Testing Fixture

Robotics

Vision System

Automations

1.5 Tab Connector Assembly Machine



Seconda1.5 Tab
ry LockHousing



Vacuum based Pick and Place System uses

- ☐ Feeding,
- ☐ Assembly,
- ☐ Inspection of Sec. Lock Position,
- ☐ Inspection for short filling in housing part
- ☐ Batch wise Separation.

Assembly

Testing Fixture

Robotics

Vision System

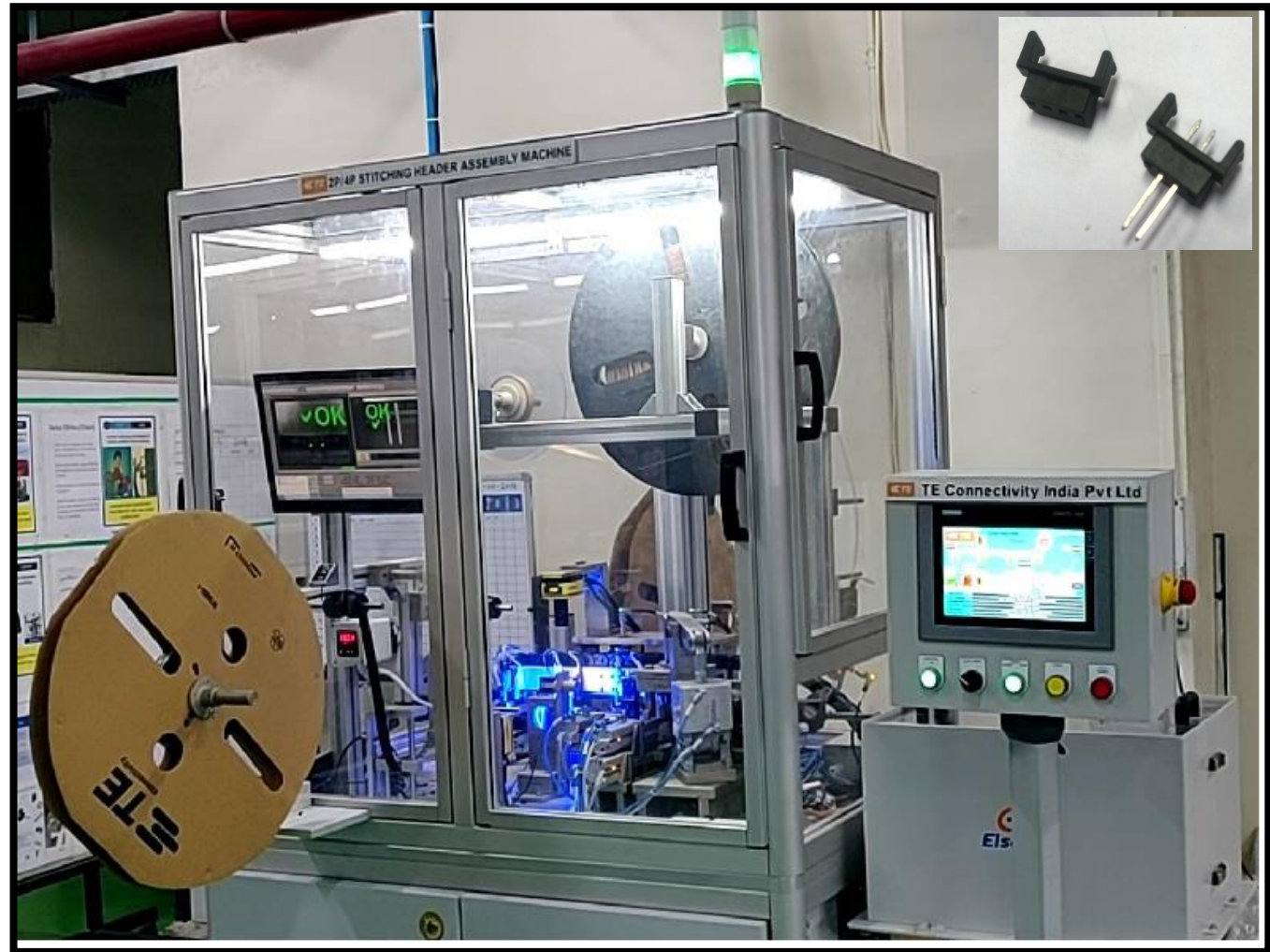
Automations

Assembly Machine :-2P/4P Stitching Header Machine



4 Stations Vacuum based Pick and Place System uses following process on part.

- ☐ Header and Terminal Feeding,
- ☐ Terminal Cutting,
- ☐ Pre-Insertion,
- ☐ Final Insertion
- ☐ Inspection,
- ☐ Packaging.



Assembly

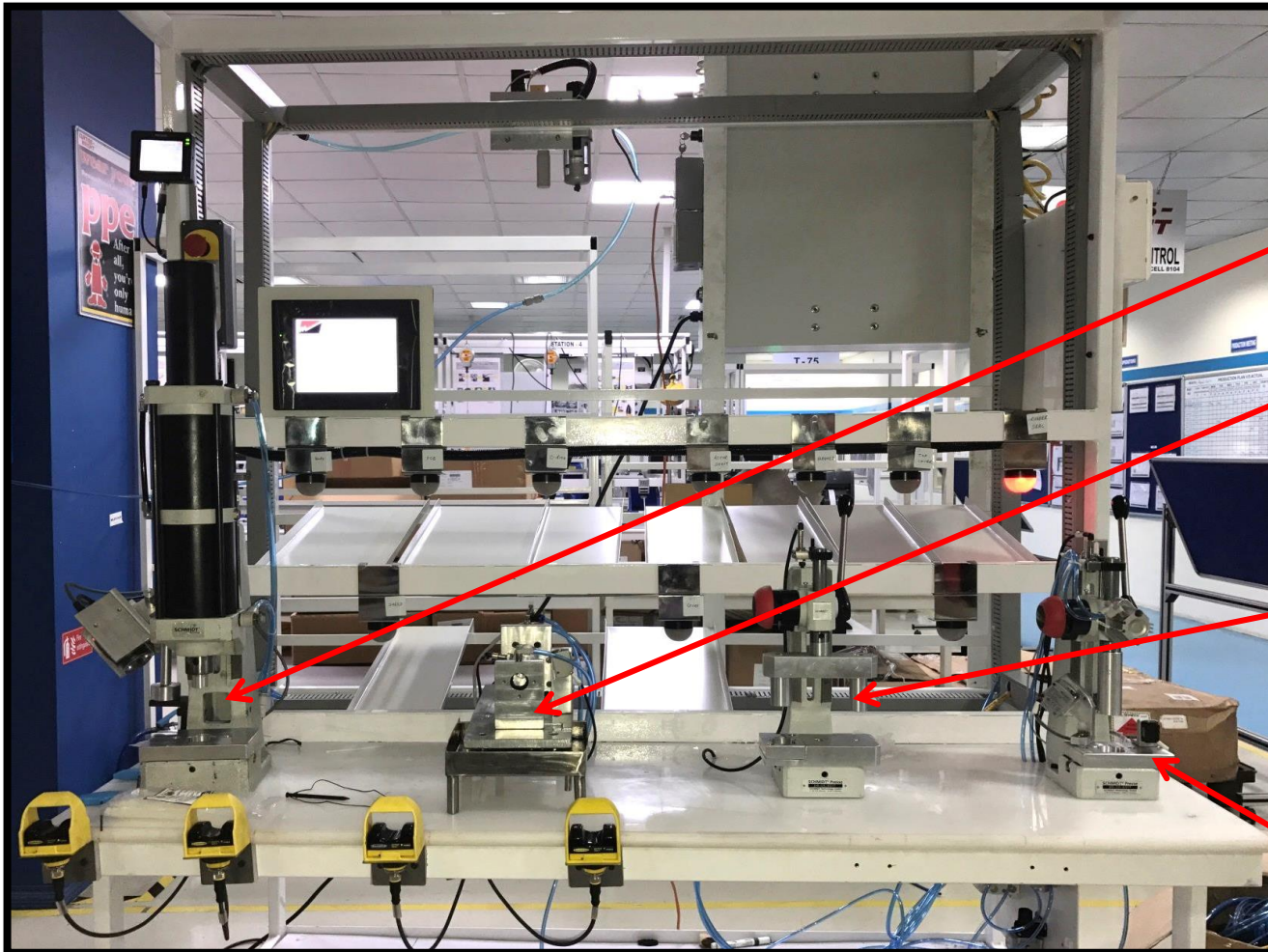
Testing Fixture

Robotics

Vision System

Automations

JCB Angle Sensor Assembly Line.



Station 1:
Shield PCB
Assembly

Station 2: O-Ring
Assly

Station 3: Cover
press Assembly &
Rotor Magnet
Assembly

Station 4: Shaft,
Rotor Cover,&
Seal Assembly

Assembly

Testing Fixture

Robotics

Vision System

Automations

Child Part Assy Line



Fully automatic 6 Child Part Assembly machine with
Multi 16 Axis Servo Pick and Place



Assembly

Testing Fixture

Robotics

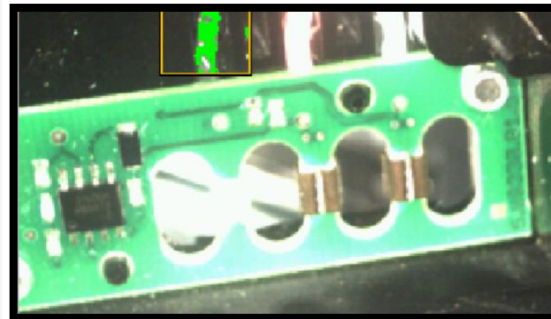
Vision System

Automations

Oil Module PCB Checking and wire continuity checking



1. PCB 2D Code presence
2. Crimp Quality
3. Presence of IC



1. Final Product Marking by Laser marking
2. Data Storage against each marked part



Assembly

Testing Fixture

Robotics

Vision System

Automations

4 Child Part Assembly machine



Fully automatic 4 Child Part Assembly machine with auto Inspection and rejection, Also multi 12 Axis Servo Pick and Place



Assembly

Testing Fixture

Robotics

Vision System

Automations

KTM Engine Filter Assembly Line



- Accelerator Pedal Assembly
- Head Light Assembly
- Angle Sensor Assembly Line
- Pulsar , KTM Engine Filter Assembly Line
- End of Line Automatic Barcode Printing



Assembly

Testing Fixture

Robotics

Vision System

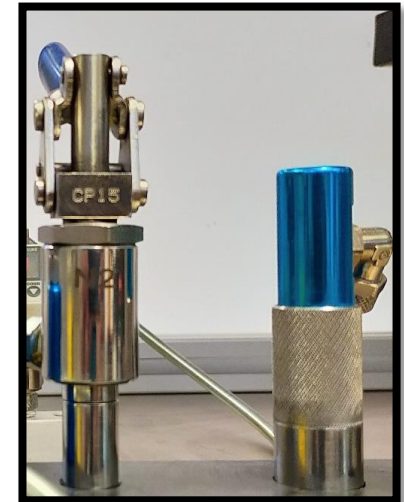
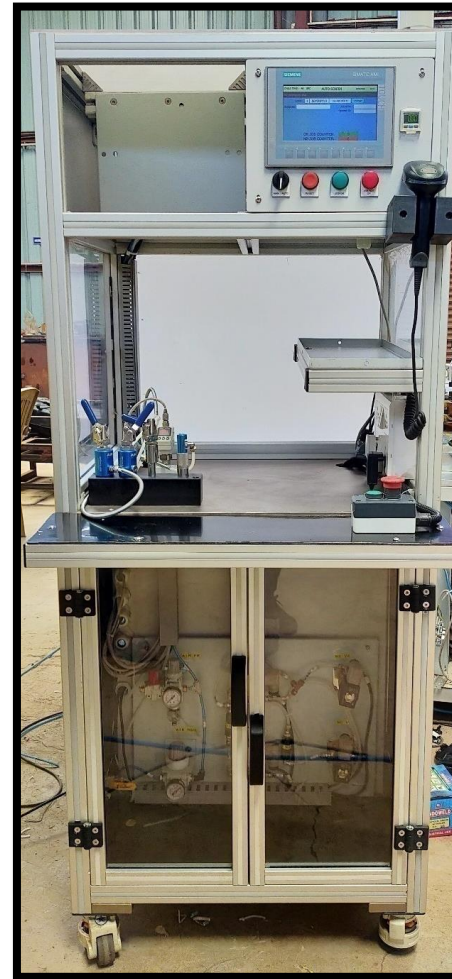
Automations

KTM Engine Filter Assembly Line



4 Station Leak Testing System

Positive Leak Test and Flow Test and Laser Marking after Test comes Good



Assembly

Testing Fixture

Robotics

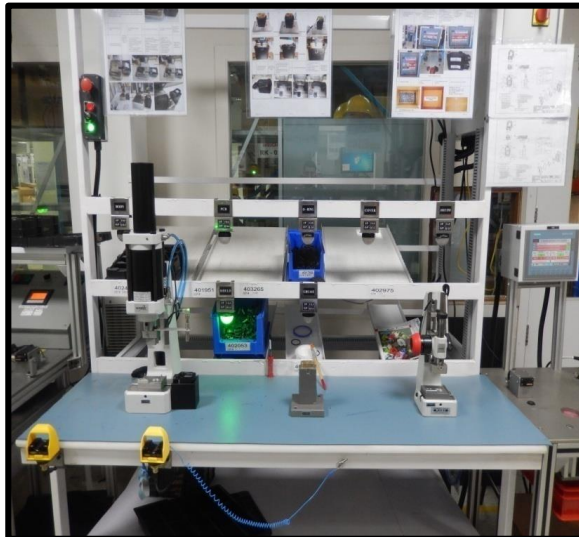
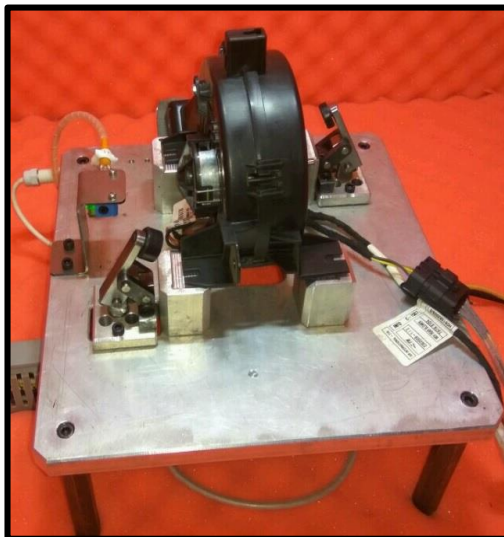
Vision System

Automations

Assembly Line



- Blower EOL Tester
- JCB and Bobcat Sensor Torque check
- Pedal Torque Checking Application
- Sensor Body Assembly line
- Conveyors-Slated ,Belt, Roller
- Bush Pressing Using Robot Cylinder
- Vision Inspection Setup



Assembly

Testing Fixture

Robotics

Vision System

Automations

Material Handling and feeding System



Bowl Feeders ,Hoppers , Conveyors, Slat conveyors and Elevator Hoppers



Assembly

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Robotics

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Automations

Our Valuable Customers



Tractors and Farm Equipment
Limited

SANDHAR

Cipla



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Automations



**Thanks for your
Attention**