

FUTURE TECH SOLUTIONS

Manufacture
the best quality of
conveyor line systems,
robotic cell & all kinds
of automation
solutions

Making It Easy
for You

Design & Manufacture the best quality of Design provided & implementation:-

- SPM Machine
- Pick & Place Feeding System
- CNC Robot, Robotic cell
- Assembly Line Automation
- Data Logging & Electrical Control Panels
- Conveyor line Auto systems
- Hydro Pneumatic / Pneumatic Press Machine
- Gear Transmission & Speed Reducing Gear Box
- Hydraulic & Pneumatic Fixture, Welding Fixture
- Machine overhauling and modification services
- Spring Machine
- Press Tools, Jig & Fixtures, Assembly Fixture, Welding Fixture, checking fixture, checking gauge, and Templates etc.

All type design format 2D / 3D model and Drawing dimension with GD&T) with costing sheet, all design document, and develop. Rendering in real View. all kinds of automation solutions provided to **Future Tech Solutions as per your requirements.**



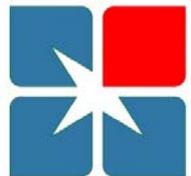


About Future Tech Solutions

Future Tech Solutions is the leading name in automation industry. The focus is always on the most efficient and productive solutions in factory and process automation. The company offers over 100+ products and system solutions for pneumatic and electrical automation technology that enable maximum productivity. With a wide range of modular systems, customer specific applications can be realized for a wide variety of factory and process automation sectors.

A fully compatible automation environment in which all components fit together seamlessly includes both pneumatic and electrical systems. As an automation company, **Future Tech Solutions** offers an open architecture that makes it possible to control electrical and pneumatic systems in one solution. With its many years of experience, **Future Tech Solutions supports** in the optimal design and technology solution, whether in pneumatic, hydraulic or electrical automation or in the implementation of combined solution.

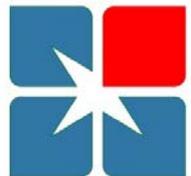
In short Future Tech Solutions is Your Complete Automation & Manufacturing Solution.





Industry Segment

- ❖ Automation Industry
 - ❖ Automotive Industry
 - ❖ Electronics Industry
 - ❖ Medium and Heavy Engineering
 - ❖ Tier 1 Supplier Industry
 - ❖ Automation & Machine Control Panels & panels overhauling modification services
 - ❖ Machine Fully digital inter-locking system with HMI Commination
 - ❖ Data login Fulli digitalization for commination allover plant any sector (**Aire Commination, Light Commination, Gas Commination, Manpower base production quantity**) Fully digital monitoring your system)
- Future Tech Solutions** also provides turn-key solutions like Material Handling System, Robotic Cells, Storage Equipment and Customized Fabrication, etc.

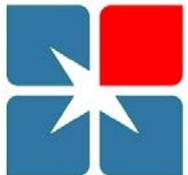


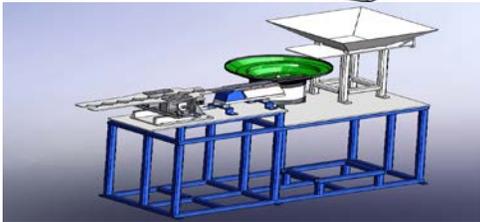
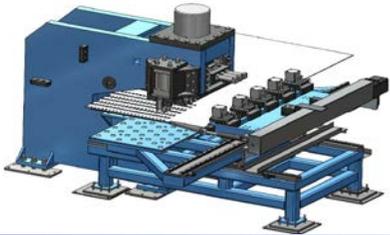
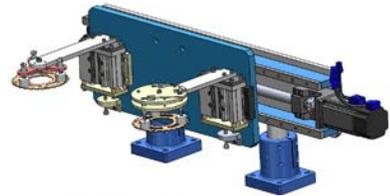


Project Segment

- ❖ Special Purpose Machine, SPM
- ❖ Conveyor Line Auto System
- ❖ Assembly Line & Manufacturing line Automation
- ❖ Robotic Cells & Robotic Arms (Pneumatic, Servo & cam System)
- ❖ Spring Machine semi auto & fully automatic type
- ❖ Drilling, Taping, Fitting, CNC / VMC any type machining line Automation
- ❖ Machine Fully digital inter-locking system with HMI Commination
- ❖ Data login Fully Digitalization for commination allover plant any sector
- ❖ Machine overhauling and modification
- ❖ Jig & Fixtures, Assembly Fixture, Welding Fixture, checking fixture, checking gauge, and Templates
- ❖ Press Tools (Blanking, Embossing, Punching, Draw, Cam Punching, chamfering fleering & Bending tools design.)
- ❖ Feeder Pick & Place (Ball screw, Timing Belt, Pneumatic, Servo, Cam base & 360° Rotation feeder)

Any Type Machine, SPM, Robotic, fully process auto run and any type automation challenging, very low cast as per your requirements, provided to **Future Tech Solutions**





**Pick & Place with servo
linear type Feeder**

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Linear Feeder pick-and-place systems with servos:- High-precision automated solutions used to move objects along a straight path. Unlike basic pneumatic systems, these use **servo motors** to provide a closed-loop feedback mechanism, ensuring every movement is accurate to within microns.

Core Mechanisms and Operation:-

Linear Motion Conversion: Standard rotary servo motors are often coupled with mechanical components like **ball screws**, **lead screws**, or **timing belts** to convert circular motion into straight-line movement.

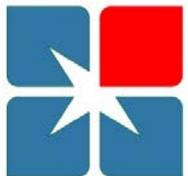
Direct-Drive Linear Servos: High-end systems may use "true" linear servo motors, which eliminate mechanical conversion. These use electromagnetic forcers moving along a magnet track, providing smooth, silent, and virtually maintenance-free operation.

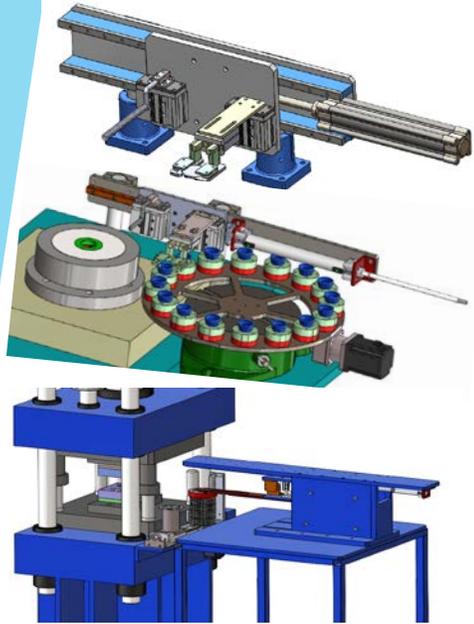
Closed-Loop Control: The system's controller constantly receives data from an **encoder**. If the arm deviates from its path due to load or speed, the controller makes real-time adjustments to maintain precision.

Key Advantages:-

High Repeatability: Essential for manufacturing, these systems consistently place parts in the exact same spot for millions of cycles.

Speed: High-performance units can reach speeds of 4 meters per second with 4g acceleration, making them ideal for high-speed electronics assembly.





linear pneumatic pick-and-place Feeder system

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for You**

linear Feeder Pick & place system with Pneumatic :- Uses compressed air to quickly and precisely move objects, employing linear actuators for straight-line motion (up/down, side-to-side) and often rotary actuators or grippers for orientation. Common in high-speed automation for packaging, electronics, and assembly, offering a cost-effective, reliable, and simple solution for handling lightweight to moderate parts. These systems rely on solenoid valves, sensors, and Programmable Logic Controllers (PLCs) for control, providing fast cycle times and high repeatability, with variations like double-acting cylinders allowing for longer strokes.

Actuation: Compressed air powers cylinders (linear/rotary) to generate motion.

Motion: A linear cylinder moves the tool (e.g., gripper) horizontally or vertically; a rotary cylinder might add rotation.

Gripping: Pneumatic grippers, powered by internal air pistons, open and close to grasp items, often using vacuum cups or fingers.

Control: Solenoid valves direct air, while sensors and PLCs manage the sequence, speed, and precise positioning.

PLC (Programmable Logic Controller): The "brain" coordinating the system.

High Speed: Faster cycle times, ideal for high-volume tasks.

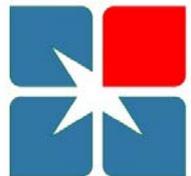
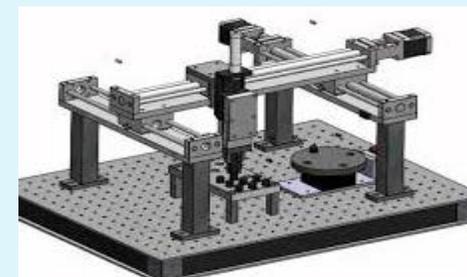
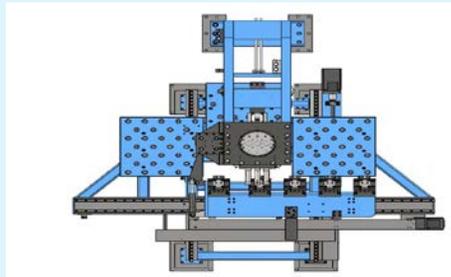
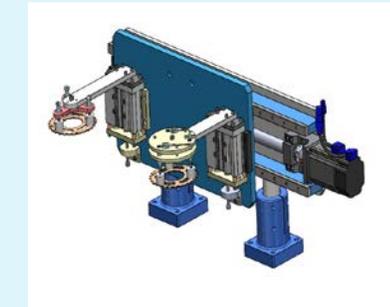
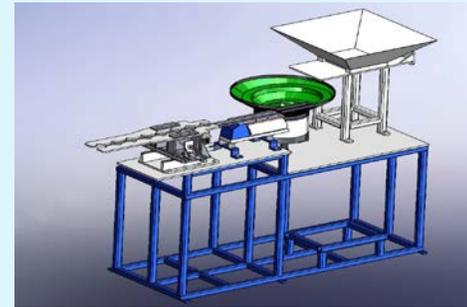
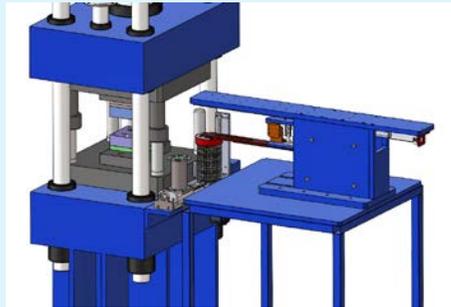
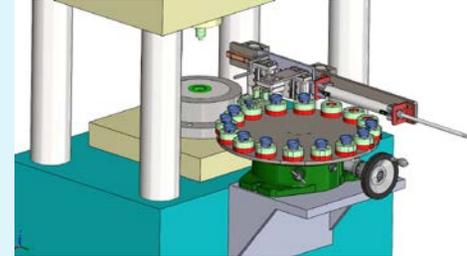
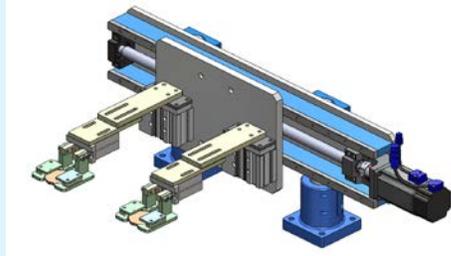
Cost-Effective: Simpler and less expensive than servo systems for many applications.

Reliable & Simple: Fewer complex parts, easy maintenance, and clean operation (oil-free options available).



❖ **Feeder pick and place system** automates the process of assembly line and manufacturing components. crucial for high-speed, high-accuracy SMT manufacturing. These systems boost efficiency, reduce labor, and ensure consistent quality in mass-producing electronics, with mechanical feeders providing components. to the robotic arm for placement. Very low cost fully automation.

Product Gallery





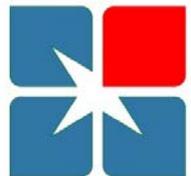
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Conveyor Mechanisms system:-

Belt (versatile, continuous loop), **roller** (powered or gravity-fed rollers for boxes/pallets), **chain** (heavy-duty, for hot or large items), **overhead** (hanging from ceiling), **screw/auger** (rotating flights for bulk materials), **pneumatic** (air-powered for powders/granules), and specialized types like **vibrating**, **bucket**, **magnetic**, or **spiral** conveyors, each suited for specific materials and industrial needs like manufacturing,

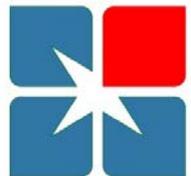
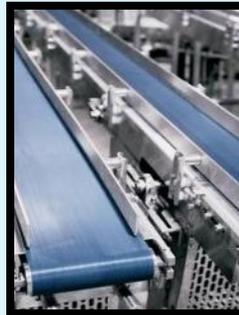
- ❖ Belt Conveyors
- ❖ Roller Conveyors
- ❖ Chain Conveyors
- ❖ Overhead Conveyors
- ❖ Pneumatic Conveyors
- ❖ Vibrating Conveyors
- ❖ Pallet Conveyors
- ❖ Modular Belt Conveyors
- ❖ Wire Mesh Conveyors
- ❖ Incline/Decline Conveyors
- ❖ Gravity Conveyors

Selection depends on material (bulk, packaged, hot, ferrous), required capacity, layout (straight, curved, vertical), and industry standards, often combining types for a complete system.



Product Gallery

- ❖ **Conveyor Automation System** Conveyors are especially useful in applications involving the transport of heavy or bulky materials. Conveyor system allow quick and efficient transport for wide variety of materials, which make them very popular in the material handling and packaging industries.





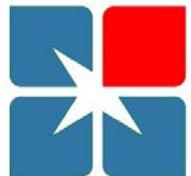
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SPM machine (Special Purpose Machine) Mechanisms system:-

SPM is a custom-built, automated machine designed for one specific, high-efficiency manufacturing task, unlike general-purpose machines. These tailor-made systems use robotics, sensors, and specific tooling for mass production of components like Gear-Cutting, boring, drilling, or Assembly, flaring high accuracy, speed, and reduced costs by automating repetitive processes.

Characteristics

- ❖ **Customized:** Built to unique client specifications,
- ❖ **Dedicated Function:** Performs a single or limited set of operations (e.g., facing, tapping, grinding).
- ❖ **Automated:** Often incorporates PLCs, sensors, and robotics for minimal human intervention.
- ❖ **High Efficiency:** Engineered for mass production, increasing output and reducing cycle times.
- ❖ **Highly Manufacturing Precision work:** Precision metal cutting, honing, and welding, Drilling, Tapping, Facing, Angular Drilling.
- ❖ **Increased Throughput:** Faster production rates.
- ❖ **Improved Quality:** High precision and repeatability, reducing errors.
- ❖ **Cost Savings:** Lower labor costs and minimized downtime.



Product Gallery

- ❖ **Special Purpose Machines**
SPM, Special Purpose Machine offer tremendous scope for high volume production at low investment and at low cost of production when compared to CNC machines. SPM is a high productivity machine, with specially designed tooling and fixture, dedicated for mass producing the same component day in and day out. A judicious combination of limit switches, sensors, logic controls, automatic job clamping etc. is the essence of a SPM.





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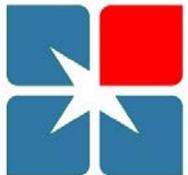
Fixtures Design & Develop:-

fixtures securely locate, support, and hold workpieces in precise alignment during welding to ensure accuracy, repeatability, and prevent distortion, using materials that withstand high heat and stress for consistent, **high-quality automated or manual production**. They are crucial for mass production, and reducing operator risk by holding parts firmly,

Modular Fixtures: Versatile systems with customizable bases (**D16 table**) base, and clamps for quick setup.

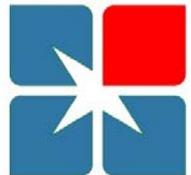
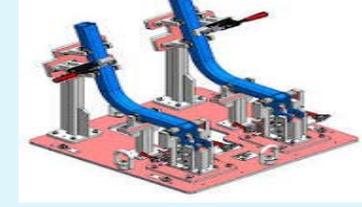
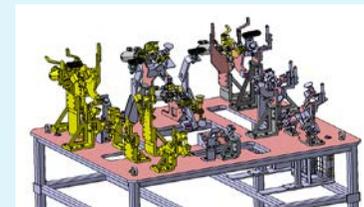
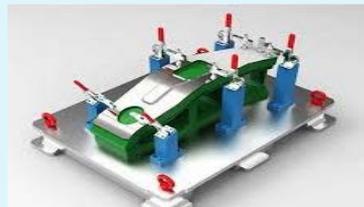
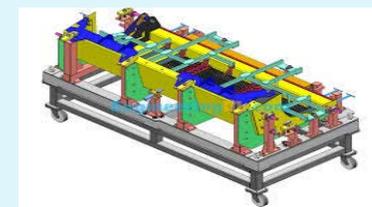
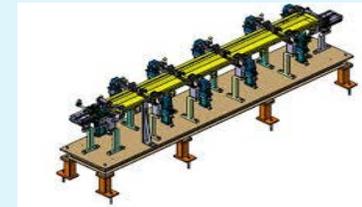
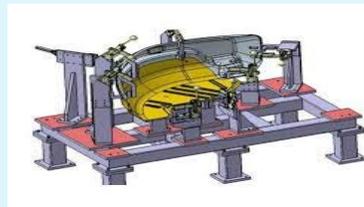
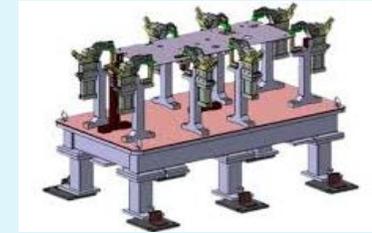
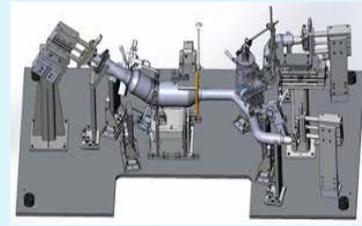
- ❖ **Modular Fixtures:** Flexible, adjustable systems for various parts.
- ❖ **Clamping Fixtures:** Use clamps (hold-downs, corner clamps).
- ❖ **Robotic Fixtures:** For automated systems, ensuring precision.
- ❖ **Milling Fixtures:** For operations on milling machines.
- ❖ **Material:** Must be durable and heat-resistant.
- ❖ **Clamping:** Securely holds parts without damaging.
- ❖ **Locators:** Pins or stops for precise positioning.

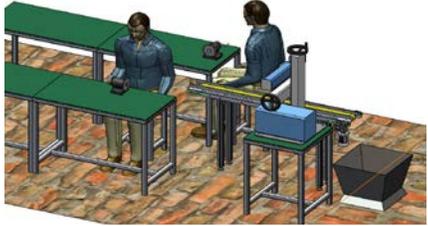
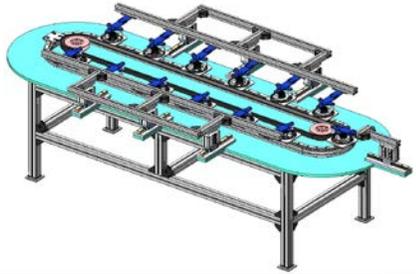
A fixture provides fixed points (locators) to position the part and clamping elements, screws, clamps, hydraulic cylinders, using as (Welding, Machining, Assembly press fitting, Inspection)



Product Gallery

❖ **Fixtures Design & Develop:-**
Welding fixture, Machining fixture, Assembly fixture, press fitting fixture, Inspection fixture, Gauge fixture, Panel Checker.





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Assembly line automation:-

uses machinery, robotics, and software to perform tasks like assembly, inspection, and packaging, moving products along conveyors with little human intervention to boost efficiency, quality, and throughput, employing methods like fixed, flexible, or lean automation for high-volume or adaptable. It transforms traditional manufacturing by enabling speed, precision, and scalability, significantly reducing labor costs and errors.

Applying like this:

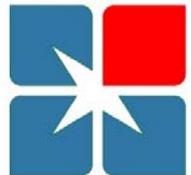
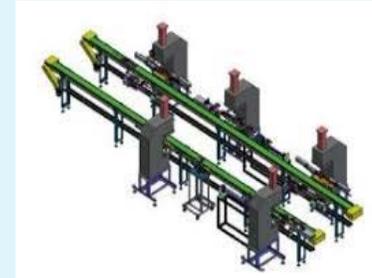
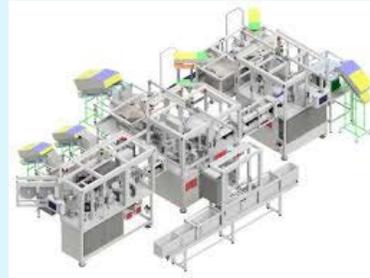
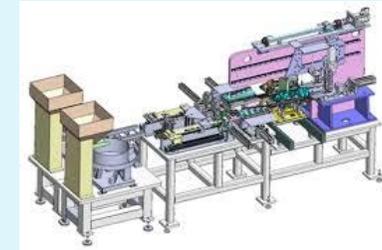
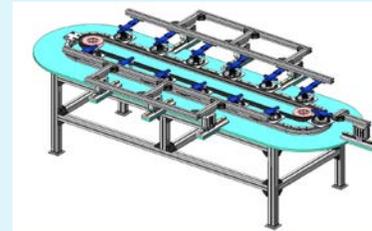
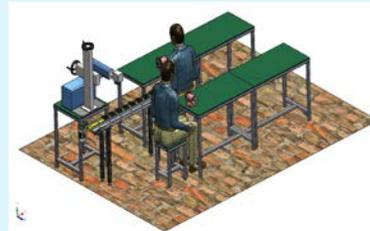
- ❖ Parts move between stations via conveyors (roller, belt, overhead) or Automated Guided Vehicles.
- ❖ **Clamping Fixtures: Use clamps (hold-downs, corner clamps).**
- ❖ Each station performs a **(specific task, screwing, testing, zero tolerance)** using automated tools, robots, pick-and-place units, gravity base, Vibratory feeders, vacuum grippers.
- ❖ **Increased Productivity & Throughput: Faster, non-stop production.**
- ❖ **Improved Quality: Consistent, precise execution reduces defects.**
- ❖ **Cost Reduction: Lower labor costs and fewer errors.**
- ❖ **Scalability: Easily increase output without adding significant human resources.**
- ❖ **Vision Systems: For inspection and guiding robots.**
- ❖ **PLC/SCADA: For control and monitoring.**



Product Gallery

❖ Assembly Line Automation & Robotic

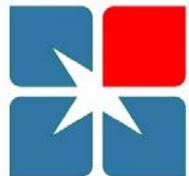
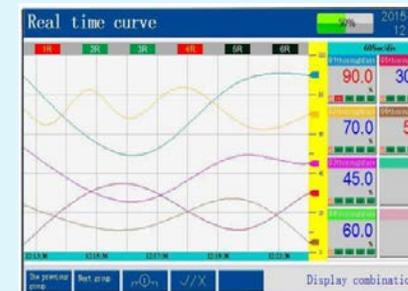
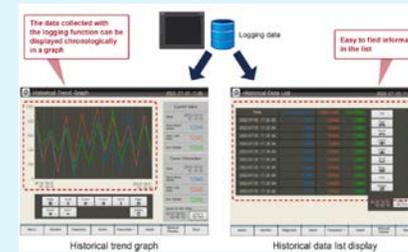
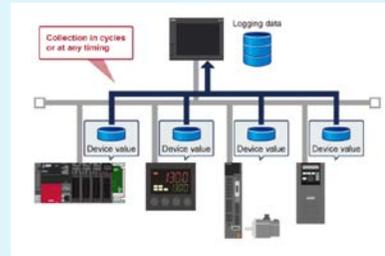
Highly speed, highly precision, and scalability, significantly reducing labor costs, errors, Zero defects, fully control and monitoring easy way.



❖ DATA LOGGING:-

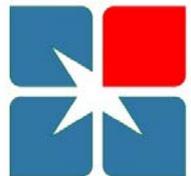
Real-time monitoring, alarm management, trends and reports with PLC/RTU integration, historians and secure industrial networking for plant machines, electrical consumption system, water, Air, temperature, pressure, flow systems, utilities and process plants. Our main purpose with this is to save information for you for present & future analysis.

Product Gallery



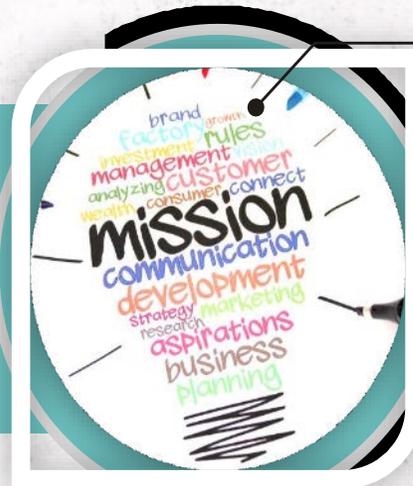
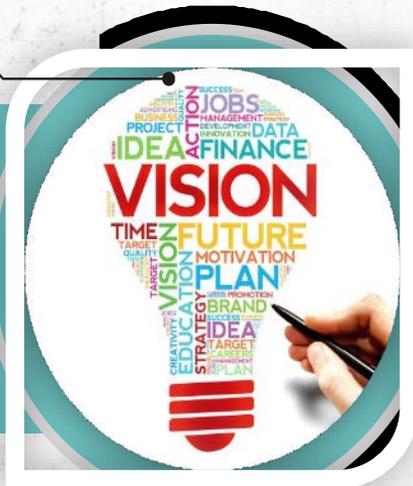
Product Gallery

- ❖ **CONTROL PANELS:-** Specialize in providing cutting-edge Industrial Automation solutions, with a core expertise in PLC (Programmable Logic Controller) and HMI (Human-Machine Interface) integration. Our firm designs and implements high-performance control panels that serve as the 'brain' and 'face' of modern manufacturing. By bridging the gap between complex logic and user-friendly operation, we empower industries to achieve maximum productivity with minimal downtime."

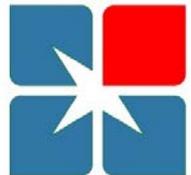


Our Vision

Our Mission



Getting you to your Goal is my Aim



OUR PRESTIGIOUS CUSTOMERS



Registered Office & Manufacturing Unit



Address:- Near Bhagwati Chemical Khasra No.
9 Girdharpur Road Chhapraula -
201009 Gautam Buddha Nagar

GST IN:- 09AALFF1365N1ZX



Contact No.: +91 9625030503
+91 8107427884



Email id.: team@futuretechsol.in
techsupport@futuretechsol.in



Website: <https://futuretechsol.in>

