



*Welcome to the world of Robotics*

# ***PERFECT ROBOTICS***



[www.perfectrobotics.in](http://www.perfectrobotics.in)

*Let's Automate the World*

SCAN ME



CORPORATE BROCHURE



35 days

$$\sum_{n=1 \text{ day}}^{35 \text{ days}} \text{PO} + \text{Design} + \text{CBO} + \text{Manufacturing} + \text{Assembly} + \text{Trials} + \text{Installation} + \text{Commisioning} = \text{Perfect Solution to Project}$$

**P**erfect Robotics is robotics & industrial automation company in Pune, Maharashtra India. The perfect engineering strength enables **Perfect Robotics** to be a Perfect automation Solution provider, from conceptualizing, designing and supporting advanced factory automation systems. It provides its customers with the solutions they need to enhance productivity and achieve their manufacturing goals. Team has experienced in designing wide variety of projects like Conveyors, Gantry's, Gauging



**Mr. Dadasaheb M. Atar**

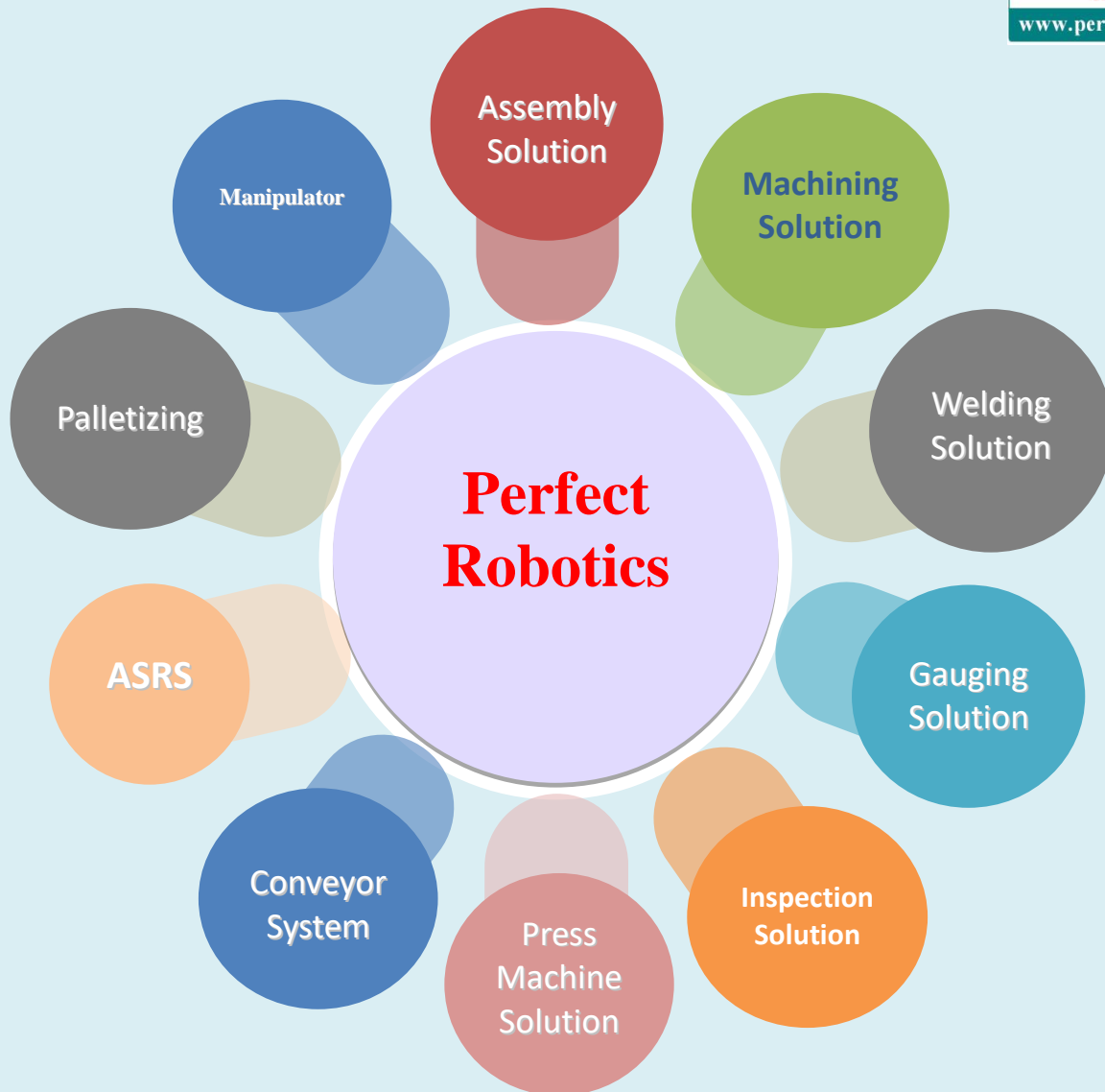
B.E. Mechanical (COE Karad)  
M.Tech., Ph.D. \*(COEP)

System, Jig & Fixtures, Ergonomics, Assembly Automation, Welding Fixtures, Assembly Fixtures, Turn Over Device, Jig Booms, Overhead Conveyors, Inspection Fixture, Robot Integration, Rails and Structures, Painting Robot Automation, Leak Testing Machines, SPM, Presses, Power and Free Conveyors, Powered Roller Conveyors, Chain Conveyors etc.

Established in year 2015, we PERFECT ROBOTICS are newly started organization engaged in offering a wide range of automation and robotic solutions to our customer. Our spectrum of services and products meet the demands of automotive, engineering and heavy industries. We are led under the able guidance of our promoter Mr. Dadasaheb Atar having 15+ years of experience in Robotics and Automation.

**COMPANY PROFILE**

<b>Name of Company</b>	<b>PERFECT ROBOTICS</b>
<b>Year of Establishment</b>	<b>Jan 2015</b>
<b>Nature of Business</b>	<b>Robotics and Industrial Automation Solution Provider</b>
<b>Total No Employees</b>	<b>Up to 35</b>
<b>PAN NUMBER</b>	<b>AASFP0827E</b>
<b>GST</b>	<b>27AASFP0827E1Z4</b>
<b>Import Export Code</b>	<b>AASFP0827E</b>



Additionally, we also offer our clients...

- Jig Boom
- Boom Barrier
- Automatic Truck Loading
- Cross Transfer System
- Turn Tables
- Structure Design
- Leak Testing
- Tools & Trolleys
- Parking Systems
- Robot Integration
- Rail System
- Skinning Machine

Industries we serve.....

- Automobile Industry
- Logistic Industry
- Pharmaceutical Industry
- Agriculture Industry
- Construction Industry
- Food Industry
- Manufacturing Industry
- Mining Industry

Also we provide projects for

- DRDO
- ARD

And many more.....

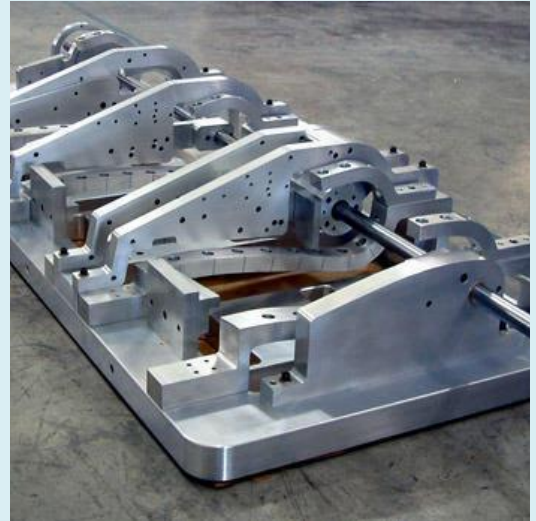
## ASSEMBLY SOLUTION

Assembly fixtures help you to complete assemblies with minimum labour production. All of which unleashes your creativity to design and test, with rapid iterations. It all adds up to increased production and gets you to market faster.

Fixtures are used to securely locate (position in a specific location or orientation) and support the work, ensuring that all parts produced using the fixture will maintain conformity and interchangeability.

We provide all types of assembly fixture as per your requirement.

### Assembly Fixture



### Assembly SPM



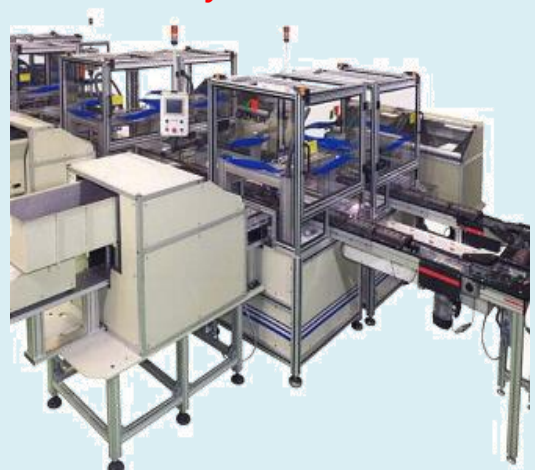
We provide the best in class Automated Assembly SPM Machine handling systems which support the production unit to increase the efficiency, accuracy, speed and also be equipped with our standard processing units. The offered machines are manufactured with high precision with the use of quality assured materials and innovative techniques in complete compliance with industry laid standards. In addition to this, we deliver the quality tested range of these machines at patrons' end within the predetermined time period.

Automated assembly solutions which are reliable and cost effective. Assembly Automation's includes:-

- Design for assembly and disassembly
- Assembly sequence planning
- Assembly line design
- Lean manufacturing
- Rapid manufacturing
- Mass customization

Perfect Robotics are dealing in the machining solution for technologically advanced range of products

### Assembly Automation



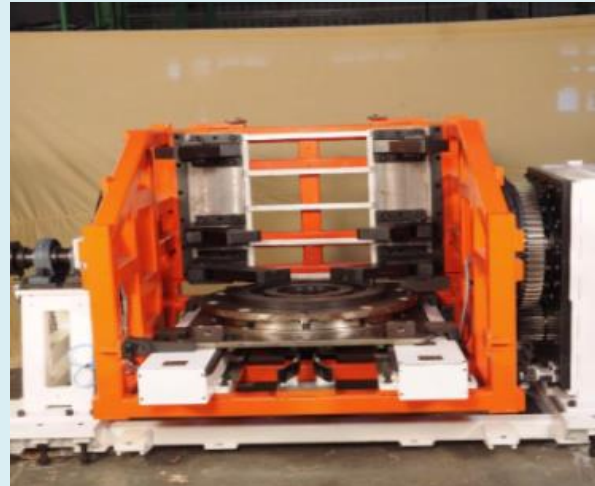


## MACHINING SOLUTION

### Machining Fixture

Tool and many more such products, which can minimize machining time and machining waste and improve accuracy.

To create a secure mounting point for a work piece, allowing for support during operation and increased accuracy, precision, reliability, also serves to reduce working time by allowing quick set-up, and by smoothing the transition from part to part. It frequently reduces the complexity of a process, allowing for unskilled workers to perform it and effectively transferring the skill of the tool maker to the unskilled worker.



### Machining SPM



Special purpose machines are those machines specially designed and customized to meet customer's specific requirement or demand. These tailor made machines are generally not included in Standard Manufacturing Programs and thus are not available on ready to sale basis.

Our long experience with expertise on several processes and our innovative quest drive us to make exceptional special purpose machines that not only caters the need but also are Smart in doing so.

### Machining Automation

With machining automation, we ensure automated equipment to produce parts with consistent precision, maintaining part tolerances within 0.1 of an mm, minimized costs with automated pallet changers enable one operator to oversee multiple machines, reducing labour costs to save you money and Reliable turnaround times – Machining automation helps minimize the risk of downtime and delays, so you can receive the parts when you need them.

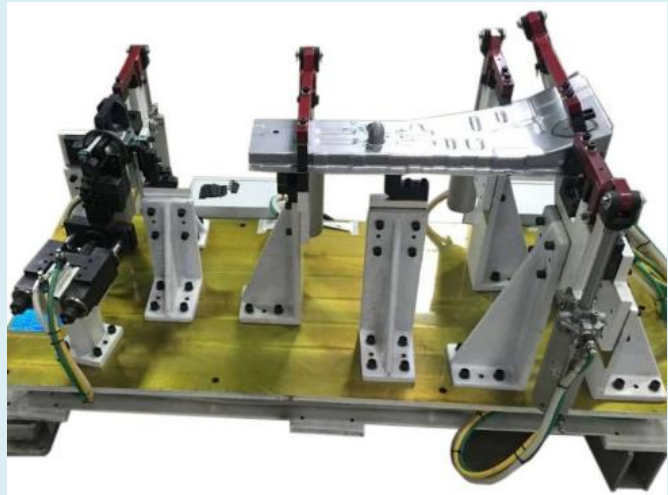


## WELDING SOLUTION

A welding fixture is used to position product parts for welding. This secures the geometry of the product parts. Perfect Robotics is expert in developing and engineering welding fixtures. Other considerations also play a role: construction possibilities, the number of products, ergonomic options in view of ease-of-use, or the expected costs of the various options.

When demands with regard to maximum casting are high, or when long welds must be made, the welding fixture should have a cooling function.

### Welding Fixture



### Welding SPM



Narrow GAP welding SPM system is widely used in pressure vessel, nuclear power, boiler and heavy machinery industry. Perfect Robotics provides narrow gap MIG, narrow gap TIG and narrow gap SAW. Multi types of advanced tracking technology and ARC control technology are used in the system. This high end welding technology and product made a great contribution to those special industries

Automated welding can provide large gains in productivity and profitability - in the right applications.

In fully automatic welding, a custom machine, or series of machines, loads the workpiece, indexes the part or torch into position, accomplishes the weld, monitors the quality of the joint and unloads the finished product. Additional "part in place" and final product quality checks may also be designed into the machine if necessary. Depending on the operation, a machine operator may be necessary.

### Welding Automation





## INSPECTION SOLUTION

We offer to our valued customers a supreme quality range of Inspection Fixtures. These provided products are developed and made-up using top-notch quality basic material and hi-tech tools. Apart from this, we provide these products within a stated period with features like

- Fine quality
- Durable
- Strong Finish
- Optimum strength

### Inspection Fixture



### Inspection SPM



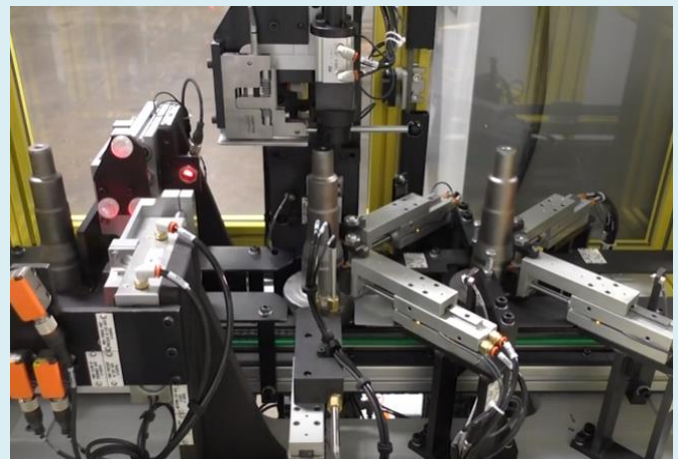
Inspections SPM are used to identify and correct errors in a completed deliverable, before the deliverable is used as input to a subsequent deliverable. The focus of the inspection process is on finding defects, rather than solutions, which can divert the inspection meeting time.

Inspection SPM removes the people from the line who as well as carrying out manual tasks also inspected products and packs visually.

Automated inspection systems also take advantage of machine vision cameras for data collection and computer software for data analysis. The camera captures images and sends them to the computer for processing. The computer then analyses the images and makes decisions as to whether the image has passed or failed inspection.

The real benefit of an automated inspection system is the added value that it can contribute towards the bottom line, every defect that is detected means less waste and an increase in overall profits.

### Inspection Automation



## GAUGING SOLUTION

We provide Post Process Gauge Check, in different industrial process. Also provide Pneumatic and Air Electronic multi gauging solution to increase the efficiency of checking the multiple or complex parameters in one go on shop floor in Process Gauge Maintenance Service.

The gauging fixtures are manual measuring stations customized for the part to be checked. The fixtures may look like stations inside which the part is carried (the so-called dog houses); this happens for instance with box-shaped parts (engine block, head, gear case and differential case, pump bodies) to check the presence of holes, their location and other.

### Gauging Fixture



### Gauging SPM



Gauging SPM Systems provides automatic gauging machines for the inspection of components like: shafts, rings, disks, case components (cylinder block, engine head, differential and gear box).

Gauge designs include integrated powered or gravity conveyance systems, walking beams or robot part handling. The part flow into and out of the gauge is controlled by the gauge station.

### Gauging Automation



With the use of advanced techniques, we are able to provide high quality range of Auto Gauging. These products are stain resistant; qualities assured and are standard in size. We work closely with our clients and provide them reliable and sustainable products which are high in performance, reliable, high in demand and are provided at leading market price range.



## PRESS MACHINE SOLUTION

### (Pneumatic/Hydraulic/Hydro-Pneumatic)

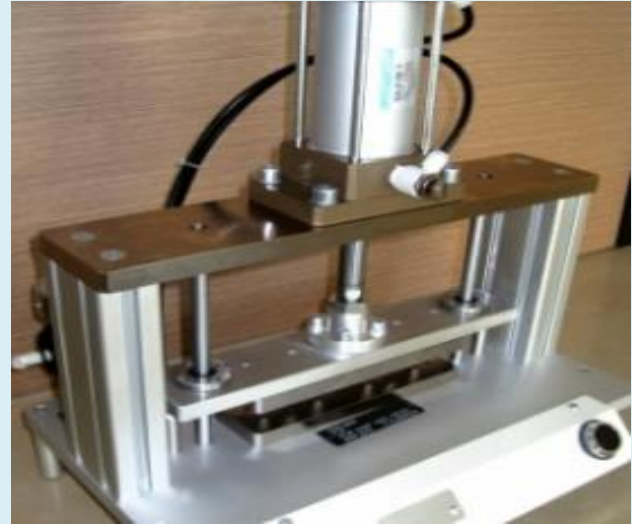
#### Press Fixture

Matching up with the requirements of our clients, we are involved in offering Press Fixture for sheet metal operations, progressive cutting, bending, Trimming, and etc.

Metal pressing, or metal stamping, is the process of forming a shape from a metal sheet, coil or tube, using a press tool and stamping dies. The metal is manipulated to the shape of the die to produce precise and accurate components.

#### Features:

- Highly efficient
- Fine quality
- Easy to maintain



#### Press SPM



Perfect Robotics design & manufacture special purpose presses as per customer requirement for automobile components such as cylinder block, cylinder head, crank shaft, rear & front axle sub assembly elements, transmission sub-assembly elements etc to press bearing race, bearing cage, liners, piston, welch plugs, cam bush, valve seat, valve guide, oil seals, bush, pin etc,.

Provision is also made to operate in manual mode, in order to make the operating sequence.

Press automation solutions help our customers maximize press shop productivity. By seamlessly integrating presses and robots into an integrated ecosystem, we can help optimize output, flexibility, availability and reliability without compromising safety or quality.

We provide well-proven systems that optimize productivity, easy-to-use automation systems that remove complexity, and cost-effective solutions that help lower fixed costs

#### Press Automation



## **AUTOMATED STORAGE/RETRIEVAL SYSTEM**

AS/RS can be defined as a storage system under which a defined degree of automation is to be implemented to ensure precision accuracy and speed in performing storage and retrieval operations. Removal of an item from a storage location automatically.

- Transferring the above item to a specific processing or interface point.
- After receiving an item from a processing or interface point, it is automatically stored at a predetermined location.



## **PARKING SYSTEM**

Smart parking system helps in places where parking space is a problem. This technology utilises parking space such that driver can easily park vehicle within short time. There are different types of automated parking structure available such as Rotary parking, Multi Circulation parking, Tower parking, Puzzle parking, etc.

## **CROSS TRANSFER SYSTEM**

Cross transfer conveyors and lift and carry tables are used for shifting and depositing steel sheets and profiles in the steel construction and steel trading industry. The transport racks or material supports are available as drag chain version or as a lift and carry table version. In order to ensure economic material handling in a steel processing work from and to the individual saws, drilling lines, blasting plants and welding sites, the cross transfer conveyors are used as a material deposit and material buffer.





## CONVEYOR SYSTEMS

Conveyors are especially useful in applications involving the transportation of heavy or bulky materials, also allow quick and efficient transportation for a wide variety of materials in the material handling and packaging industries. They also have popular consumer applications, as they are often found in supermarkets and airports, constituting the final leg of item/ bag delivery to customers. Many kinds of conveying systems are available and are used according to the various needs of different industries. There are chain conveyors (floor and overhead) as well.

### Overhead Conveyor



Overhead conveyors utilize a single rail, whether manual or driven, from which the conveying means and load handling takes place over work areas.

### Gravity Conveyor



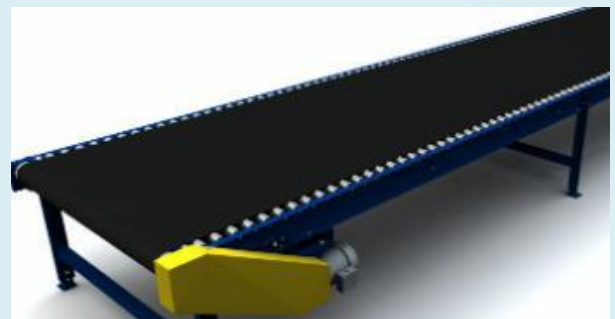
Gravity conveyor is an unpowered conveyor such as a gravity chute or a roller conveyor that uses the force of gravity to move materials over a downward path.

### Roller Conveyor



Roller Conveyors are especially useful in applications involving the transportation of heavy or bulky materials.

### Belt Conveyor



A conveyor belt is the carrying medium of a belt conveyor system. A belt conveyor system is one of many types of conveyor systems. A belt conveyor system consists of two or more pulleys, with an endless loop of carrying medium



## ROBOT INTEGRATION

(ABB, Fanuc, Kawasaki, Yasakawa, Nachi, EPSON, TAL, KUKA)

Robot integration allows industrial robots to perform specific manufacturing tasks and can lower costs, improve product quality, and decrease production time. Robot Integration is the way towards Automation in the industries, peripherals and assembling machinery into a single frame, and work as a one unit. Robot integration enables the industrial robots to perform particular manufacturing task and can bring down expenses, enhance product quality, and decrease cycle time.

### Material Handling Robot

By fitting the robot with an appropriate end of arm tool (e.g. gripper), the robot can efficiently and accurately move product from one location to another.



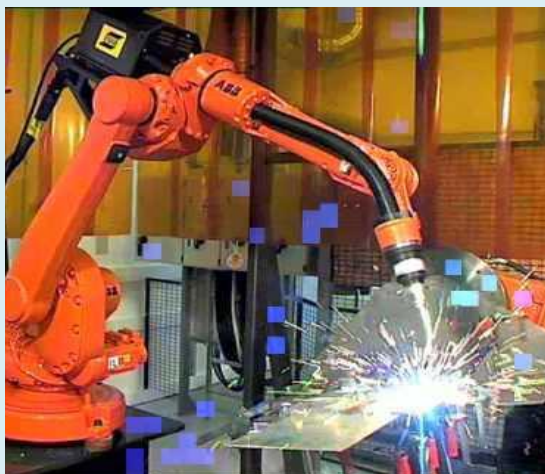
### Machining Robot

Machining robots are extremely rigid and strong to be able to machine harder materials such as metal with extreme flexibility, speed and reliability with very quickly with great accuracy.



### Welding Robot

Robot welding is commonly used for resistance spot welding and arc welding in high production applications, such as the automotive industry.



### Painting Robot

We provide Industrial paint robots in automotive paint application. These robots can be used in any explosion hazard environment with high accuracy and precision.



## Gantry Robot

A gantry robot consists of a manipulator mounted onto an overhead system that allows movement across a horizontal plane. Gantry robots are also called Cartesian or linear robots. They are usually large systems that perform pick and place applications, but they can also be used in welding and other applications



## Robotic Assembly

Assembly robots are used for lean industrial processes and have expanded production capabilities in the manufacturing world. We provide robotic assembly automation as per the requirement of customer. They are designed to move materials, as well as perform a variety of programmed tasks in manufacturing with greater accuracy.

**We also provide other Robotic Integration Applications.**

## PALLETIZING



A palletizer is a machine which provides automatic means for stacking cases of goods or products onto a pallet. Manually placing boxes on pallets can be time consuming and expensive; it can also put unusual stress on workers.

Palletizing refers to the operation of loading an object such as a corrugated carton on a pallet or a similar device in a defined pattern. Depalletizing refers to the operation of unloading the loaded object in the reverse pattern.



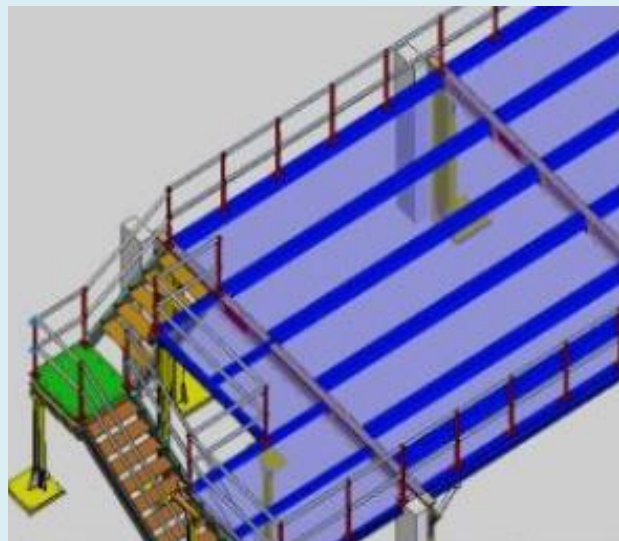
## TROLLEYS & TOOLS

For material transfer and tool transfer we also provide trolleys and tools as per customer requirements. An automatic mobile trolley was a prototype of wheel robot that serves as a trolley to support workers in performing their assembly tasks which already reacts to human gestures and follows the worker on command in a test environment.



## RAILS & STRUCTURES

A robot on a rail is a very effective means of building a mixed pallet while increasing throughput and improving ergonomics. The railing systems are particularly well-suited to corrosive environments like those found in industrial, chemical and wastewater treatment plants as well as commercial structures with urban and salt air corrosion. The manufacture, design and fabrication of fiberglass handrail systems.





## MANIPULATORS



Manipulator is a device used to manipulate materials without direct contact. The applications were originally for dealing with radioactive or bio hazardous materials, using robotic arms, or they were used in inaccessible places.

Using manipulators we provide facility for Assembly operations, Part movement from one place to other, Paint Sprayers

Robot manipulators are created from a sequence of link and joint combinations. The links are the rigid members connecting the joints, or axes. The axes are the movable components of the robotic manipulator that cause relative motion between adjoining links.

## LEAK TESTING

Leak testing is the process of checking a system for leaks (a defect). Leak testing can be achieved using various leak detection methods and is employed to test for defects in products and to ensure the proper function and maintenance of industrial systems and pipelines.

Leak testing plays an important role in our daily safety, environmental protection and the reliability of production processes and products of our daily lives. It thereby is a very important part of the quality control process. Most often, differential pressure or vacuum decay is used first to qualify a “tight” part beforehand, one may then need to locate the leak afterwards using this underwater method. If the part leaks, simple decay of pressure does not show the leakage path. If a part fails the quantifiable test then one method of detecting the leak path is to submerge in water and look for bubbles.



## WORK IN PROCESS



Welding process



Air Cleaning



Assembly at workshop



Assembly at workshop



Testing



Magnet Testing





Control Panel Wiring



Maintenance at Work site



Discussion of Members



Discussion of Members



Installation of Project



Inspection of Part by touch





Installation



Installation



Dispatching



On Site Installation



On Site Installation



On site Testing

## OUR PROMINENT CUSTOMERS

Honeywell		LG		ADIENT	
Garrett Advancing Motion		Varroc		AIM	
TATA Motors		Valeo		TBK	
Precision Automation Robotics India		Cooper		MSKH	
SSWL		Mahindra		Samarth Precision	
P N Automation & Solution		Magna		Perkins	

*thank you*

### Director

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# Typical Project Plan with Timeline

**Start**

Request from Customer

Advance for Project

Assigning a Team



First Visit

Concept

Proposal

PO Submission

Confirmation of work

Project Planning

Design Approval

Material & structure Release

Bought Out Procurement

Controls

Prelim tests & System Testing

Dispatch Clearance from Customer

Dispatch

Finish



Quotation to Customer

Pre-Design Release

Final Design Release

Vendor Selection

Customer Inspection

Installation & Commissioning

Start of Production

FAST DELIVERY

FAST DELIVERY

FAST DELIVERY

Day 1-7

Day 8-9

Day 10-21

Day 22-30

Day 35

Day 35

STEP I

1.RFQ & Enquiry  
2.First Visit  
3.Proposal & quating for customer

STEP II

4.Receipt of PO & Advance\*

STEP III

5. Team Assignment  
6. Conceptualization & Project Planning  
7. Preliminary Design- Pre Releases  
8. DAP  
9. CBO & Critical Materials /Structures Release  
10. Design Release

STEP IV

11. Vendor Selection & Ordering  
12. Bought Out Procurement  
13. Manufactured Parts Receipt  
14. Mechanical Assembly  
15. Controls Integration  
16. Prelim Tests & System Testing  
18. Customer Inspection

STEP V

19. Dispatch clearance from customer  
20. Dispatch  
21. Installation and Commissioning  
22. Start of Production of Customer  
23. Service

\* As "PO and Advance" Date changes then next coming dates and commitments are automatically changes.

