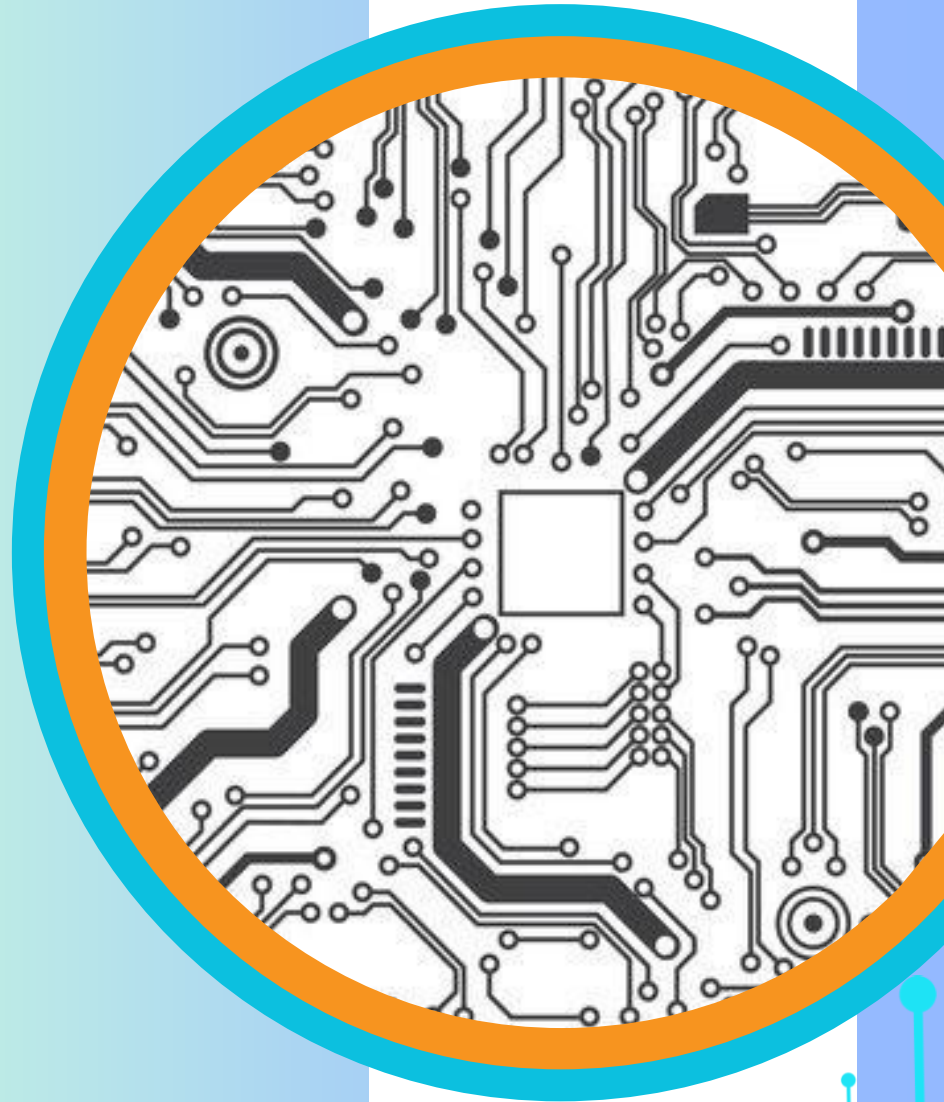




INVARIANCE[®] AUTOMATION

GSTIN: 09AAF7462N1ZW

Indigenizing SMT Solutions for
Tomorrow's Electronics Revolution



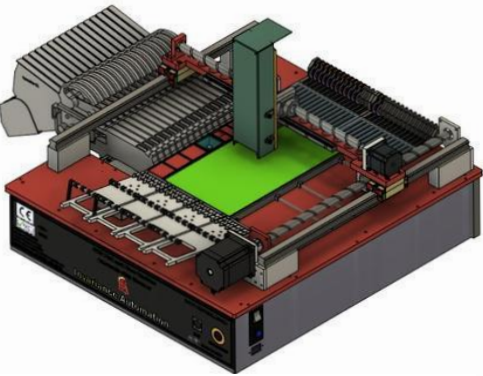
WWW.INVARIANCE.IN

PRODUCT
DISPLAY

SMT-In Line Solution



SMD PICK & PLACE MACHINE



SMD Electric Feeders



SOLDER PASTE
PRINTER



AUTOMATED OPTICAL
INSPECTION MACHINE

SMD PICK & PLACE MACHINE

INVSMT-2E



MODEL/Variant	INVSMT-2E / Desktop SMD Pick and Place Machine
XYZ Axis Travel	425MM(X), 490MM(Y) , 25MM(Z)
PCB Max Size	300 MM(L) X 300 MM(W)
Mounting Speed	Without vision: 2500 CPH; With Vision: 2000 CPH
Support Components	0402-5050, LED, SOP, QFN etc.
Precision	±0.025mm
Placement Head	2 Heads. Maximize throughput, reduce assembly time.
Feeding system	24 Yamaha CL Auto feeders support, IC Tray Feeder and 20 Auto-drag Feeders, 2 Vibration feeders Support Yamaha CL Pneumatic/Electric Feeders
Vision detection	Top and Bottom HD Camera (Up & Down)
Motor control	Step-Servo Motor With Encoder Closed-loop Control
Main board	HAL 32-bit Industry Motherboard
Operation system	Windows/Linux Operating System
Screen	Need External Monitor VGA/HDMI capable
Air source	> 8 Bar Pressure 1-3 HP Compressor
Rated Power	Power 0.6KW
Rated Voltage	AC 220v±10% 50Hz
Gross Power	90kg
Dimension	800mm(L)×780mm(W)×400mm(H)

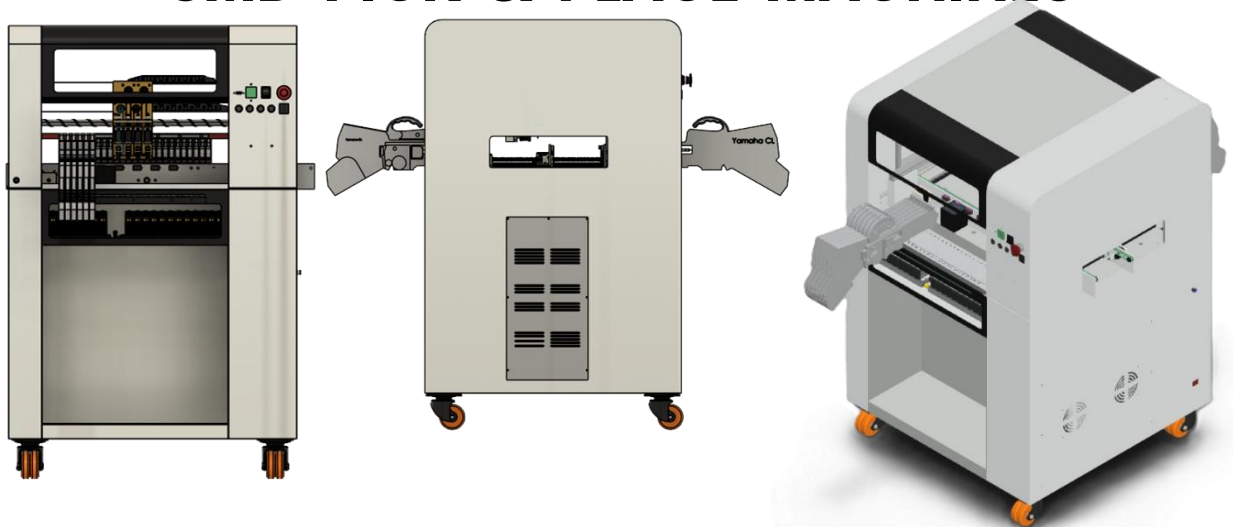
Engineered for precision and efficiency, the INVSMT-2E Desktop Size Chip Mounter is for SMT assembly line. Designed for both high-mix, low-volume and medium-volume production, it offers a perfect balance of speed, accuracy, and versatility, enabling you to bring your electronic designs to life faster and more reliably.

Custom Variants Available. Call +91-7755839309 for more details.

PRODUCT
DISPLAY

SMD PICK & PLACE MACHINES

PRODUCT
DISPLAY



MODEL/Variant	INVSMT-4P / Vertical SMD Pick and Place Machine
XYZ Axis Travel	430MM(X), 500MM(Y) , 25MM(Z)
PCB Max Size	300 MM(L) X 300 MM(W)
Mounting Speed	Without vision: 3000 CPH; With Vision: 2500 CPH
Support Components	0402-5050, LED, SOP, QFN etc.
Precision	±0.025mm
Placement Head	4 Heads
Feeding system	50 Yamaha CL Auto feeders support, IC Tray Feeder and 2 Vibration feeders
Vision detection	Support Yamaha CL Pneumatic/Electric Feeders Top and Bottom HD Camera (Up & Down)
Motor control	Step-Servo Motor With Encoder Closed-loop Control
Main board	HAL 32-bit Industry Motherboard
Operation system	Windows/Linux Operating System
Screen	Need External Monitor. VGA/HDMI capable
Air source	> 8 Bar Pressure 1-3 HP Compressor
Rated Power	Power 0.6KW
Rated Voltage	AC 220v±10% 50Hz
Gross Power	120kg
Dimension	800mm(L)×780mm(W)×400mm(H)

The INVSM-4P Automatic Chip Mounter is the heart of a modern SMT assembly line. Designed for both high-mix, low-volume and medium-volume production, it offers a perfect balance of speed, accuracy, and versatility, enabling you to bring your electronic designs to life faster and more reliably.

Custom Variants Available. Call +91-7755839309 for more details.

Semi Automatic Solder Paste Printer

INVSMT-1SSP Semi-Automatic Solder Paste Printer is a crucial component for any SMT assembly line. This machine is designed to apply solder paste onto circuit boards with exceptional accuracy, accommodating a maximum printing area of 320x400mm and board thicknesses from 0.2 to 2.2mm. It boasts a printing precision of $\pm 0.02\text{mm}$, ensuring a reliable and repeatable solder paste deposition process for high-quality electronics manufacturing. The printer is a CE-certified product from Invariance Automation, reflecting its adherence to quality and safety standards.

PRODUCT
DISPLAY



MODEL/Variant	INVSMT-1SSP / Semi-Automatic Solder Paste Printer
PRINTING PLATFORM AREA	320 X 600 mm
Frame Size	370 MM X 670 MM
CIRCUIT BOARD THICKNESS	0.2-2.2MM
PRINTING PRECISION	$\pm 0.02\text{MM}$
MACHINE REPEATED ACCURACY	$\pm 0.05\text{MM}$
MINIMUM SPACING	0.25MM
USING EMPTY PRESS	4-5KGF/CM2
USING POWER	0.3KW, 220V AC
NET WEIGHT	95KG
Air source	> 8 Bar Pressure 1-3 HP Compressor

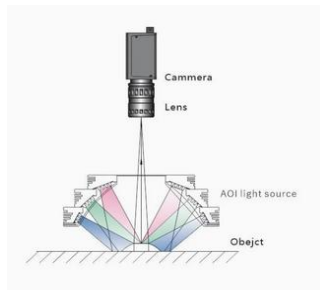
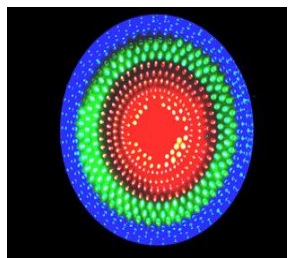
PRODUCT
DISPLAY

SEMI-AUTOMATED OPTICAL INSPECTION INVSMT-1 AIO

The INVSMT-1 AIO is an Automated Optical Inspection (AOI) machine offered by Invariance Automation Pvt. Ltd. It is an essential quality control system used in electronics manufacturing. Its primary role is to automatically scan and inspect populated printed circuit boards (PCBs) to ensure that all components have been placed and soldered correctly. An operator typically loads and unloads the boards into the machine manually, making it a flexible solution for batch production, prototyping, and high-mix assembly lines



Model	INVSMT-1 AIO / SEMI-AUTOMATED OPTICAL INSPECTION
Max. Board Size	355 x 325 mm
Board Thickness	0.6 - 2.0 mm
Components	Camera and Lens
Camera Resolution	5 MP
Optical Resolution	15µm
Lighting Source	Multi-angle, multi-color LED system
Inspection Speed	25 cm²/sec
Minimum Component Size	0402
Detectable Defects	Component Presence/Absence, Polarity, Skew, Solder Bridging, OCR
Dimensions (L x W x H)	900 x 950 x 1300 mm
Weight	90 kg
Power Requirements	220V AC, 50Hz, 0.5KW
Operating System	Windows 10/ Linux
Programming Method	CAD Data Import



CERTIFICATES




 Scan this code with your smart phone to verify the certificate.



Certificate of Compliance

CE

This is to certify that the technical documentation/inspection/test results comply with the requirement of Machinery Directives; 2006/42/EC, 2014 /32/EC manufactured by:

NAME: INVARIANCE AUTOMATION PRIVATE LIMITED
ADDRESS: 369, CHANDEL GATE, NANKARI, IIT KANPUR, KALYANPUR, KANPUR, KANPUR NAGAR, UTTAR PRADESH, 208016, INDIA
PRODUCTS: SMD PICK AND PLACE MACHINE, SEMI-AUTOMATIC SOLDER PASTE PRINTER, AUTOMATED OPTICAL INSPECTION MACHINE
MODELS: INVSMT2E, INVSMT2P, INVSMT-1SSP, INVSMT-1AOI

COMPLIES WITH THE REQUIREMENTS APPLICABLE TO IT
 The Certification Body has performed an independent audit of the above product quality system covering the design, manufacture and final inspection of the certified product. The quality system has been assessed, approved and is subject to continuous surveillance according to the Machinery Directives ; 2006/42/EC , 2014 /32/EC.

THIS CERTIFICATE IS ISSUED UNDER THE FOLLOWING CONDITIONS:

1. It applies only to the quality system maintained in the manufacture of above referenced models and it does not substitute the design or type-examination procedures, if requested.
2. The certificate remains valid until the manufacturing conditions or the quality systems are changed.
3. The certificate validity is conditioned by positive results or surveillance audits.
4. After fulfilling the relevant EU legislation, the manufacturer shall affix to each device, of the above referenced models.
5. The CE mark as shown above can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of conformity and compliance with all relevant EC Directives. The statement is based on a single evaluation of one sample of above mentioned product. It does not imply an assessment of the whole production.

Certification Calendar:

Client Id: 50341	
Certificate No: CU-53477/0525	
Initial Registered Date: 08.05.2025	Issuance Date: 08.05.2025
Date of Expiry: 07.05.2028	
1 st Surv. Due: 07.05.2026	2 nd Surv. Due: 07.05.2027






 Authorized Signatory

Validity of this certificate is subject to annual surveillance audits to be done successfully, on or before 365 days from date of this certificate.
 This certificate remains the property of PQC & shall be returned immediately upon request.
 Email: info@pccert.in, www.pccert.in




MANAGEMENT SYSTEM CERTIFICATE


This is to certify that

INVARIANCE AUTOMATION PVT LTD

369, CHANDEL GATE, NANKARI, IIT KANPUR, KALYANPUR, KANPUR NAGAR - 208016, UTTAR PRADESH, INDIA

has been assessed by RAPL and found to comply with the requirements of

ISO 9001 : 2015

Quality Management Systems

For the following activities:

PROVIDING SOLUTIONS FOR SURFACE-MOUNT ELECTRONIC COMPONENT ASSEMBLY LINES THROUGH THE MANUFACTURING OF SMT PICK-AND-PLACE MACHINES, SMT AUTOMATED OPTICAL INSPECTION (AOI) SYSTEMS AND SMT SEMI-AUTOMATIC SOLDER-PASTE PRINTERS.

Certificate Number: E20250522870
 Date of certification: 08/05/2025
 1st Surveillance on or before: 07/05/2026
 1nd Surveillance on or before: 07/05/2027
 Certification Valid Until: 07/05/2028






Accredited
 QMS Certification CAB# 119012

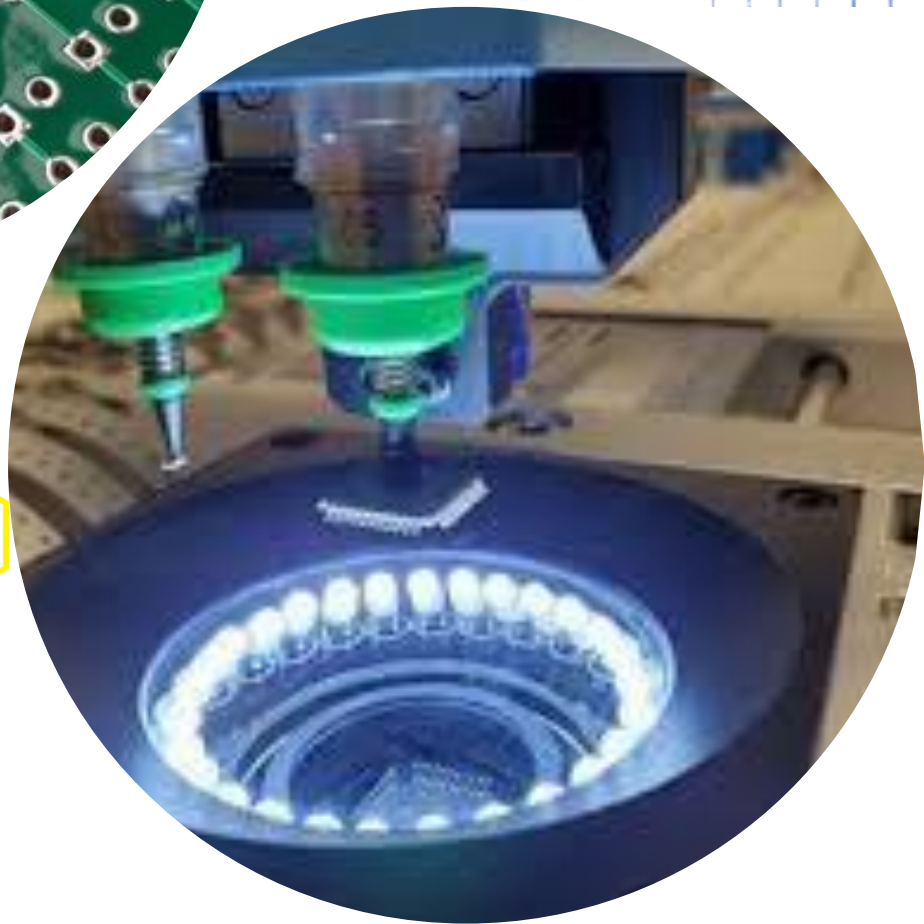
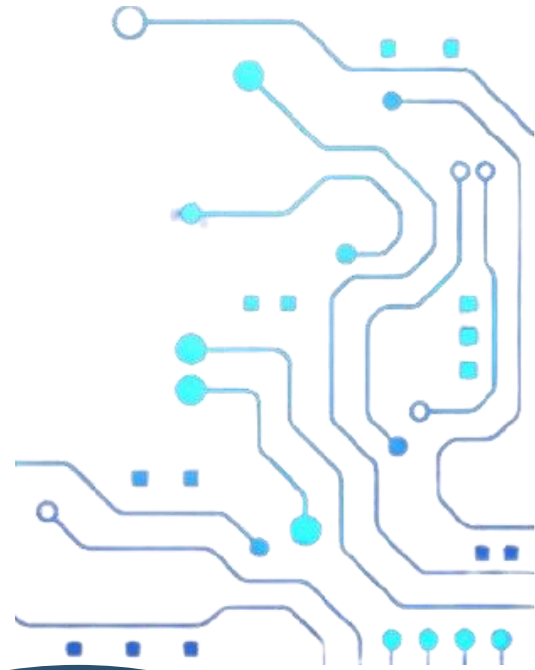
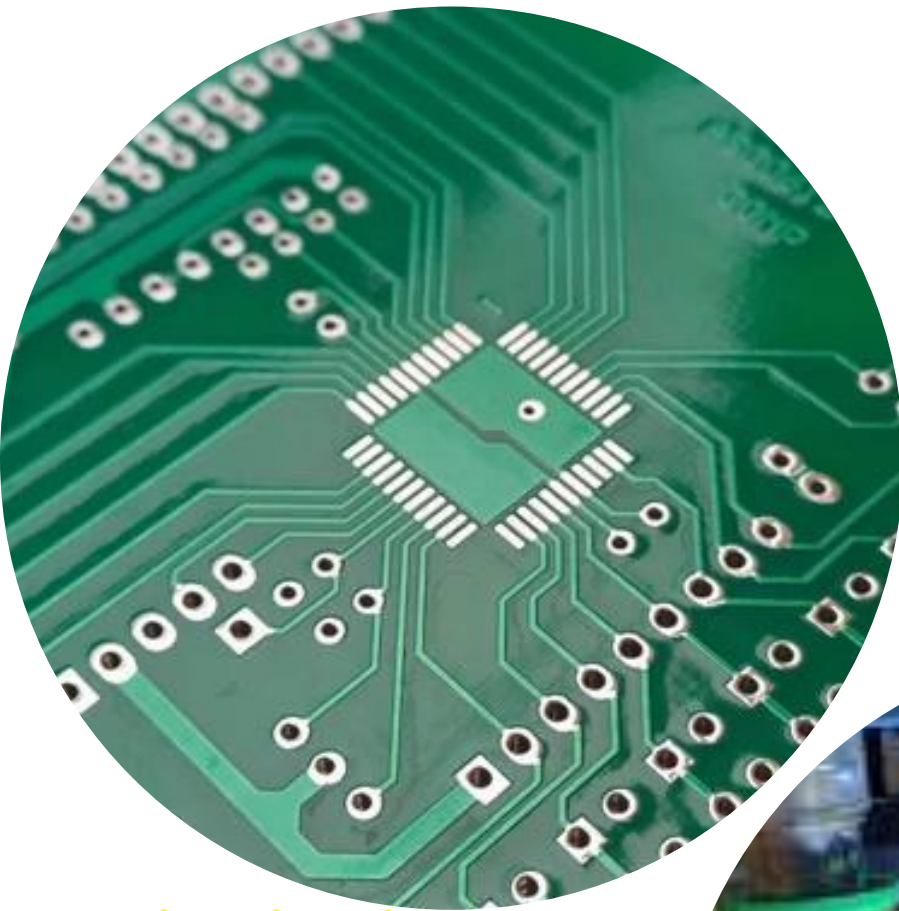

 Director (Certification)
Royal Assessments Pvt. Ltd.

623A, Tower-B, IThum, Plot No. A - 40, Sector - 62, Noida 201301, India.
 www.royalapl.com, info@royalapl.com
 Phone : +91 120 4251329
 This Certificate can be verified at www.iafcertsearch.org

This Certificate is an endorsement of certified clients certification status but remains the property of Royal Assessments Pvt. Ltd. Certificate must be returned on RAPL's request or if certificate is withdrawn. Validity of certificate is subject to successful completion of surveillance audits. RAPL is accredited by EGAC, Egypt. EGAC is member of International Accreditation Forum (IAF) and signatory of MLA.

Electronics Manufacturing Service (EMS)

Fast, Reliable & Affordable



From Prototype to Production

Your Trusted Partner in Electronics Manufacturing

Leverage the power of our state-of-the-art, indigenous technology for your own production needs. At Invariance Automation, we extend our expertise beyond machine manufacturing to offer comprehensive Electronics Manufacturing Services. Whether you are developing a new prototype or require a reliable partner for batch production, our in-house SMT assembly line—powered by our own 'Made in India' machines—is at your service.

Our mission to democratize automation means providing you with access to high-quality, cost-effective manufacturing right here in India. We are your one-stop solution for bringing electronic concepts to life, offering services that are Fast, Reliable & Affordable.

Our Core Services

PCB Prototyping: Quickly and affordably turn your designs into tangible prototypes. Our expert team and precision machines ensure your prototypes meet design specifications, allowing for rapid testing and validation.

Low-to-Medium Volume SMT Assembly

Ideal for startups and established businesses alike, we specialize in high-mix, low-to-medium volume production runs. We provide the flexibility and attention to detail that larger-scale manufacturers often overlook.

Component Sourcing & Management

Navigating the component supply chain can be complex. Let us handle the procurement and management of components for your project, ensuring quality parts are sourced efficiently to keep your production on schedule.

Quality Assurance & Inspection

Quality is at the heart of everything we do. Every board we assemble undergoes rigorous inspection, including automated optical inspection (AOI), to guarantee it meets the highest standards of quality and reliability.

Let's Build Together

Ready to start your next project?

Contact us today for a consultation and a free quote. Let Invariance Automation be the catalyst for your electronics innovation. Call +91-7755839309 for more details.

About Invariance Automation

Mission:

At Invariance Automation, we are on a mission to democratize electronics manufacturing by providing accessible and indigenous SMT solutions. Born out of IIT Kanpur, we are committed to empowering India's electronics revolution with reliable, locally-engineered technology.

Vision:

Our vision is to be the leading provider of 'Made in India' SMT assembly line machines, making advanced manufacturing capabilities affordable for businesses of all sizes.

Our

Invariance Automation Private Limited





GET IN TOUCH



TP102, Technopark, IIT KANPUR NAGAR UP-208016



arunava.karmakar@invariance.in



7755839309, 7000060479



Mentored and Incubated by:



STARTUP
INCUBATION AND
INNOVATION
CENTRE
IIT KANPUR

Supported by:



Recognized by:

