## LIFE AND SCIENCE ROBOTICS



**Pipetting Robot** NUCLEAR MEDICINE



IRP dose injector NUCLEAR MEDICINE



**Real time spirometer** RADIOLOGY



**Contact Power Transfer Module** RADIOLOGY



**Nuclear Phantom carriage** CANCEROLOGY



Cytometry laser module ANIMAL REPRODUCTION

## **OUR REFERENCES**

 AIRBUS HELICOPTER
ALSTOM TRANSPORT
ALSYOM
AMPLITUDE LASER ACTEMIUM • AIRBUS ARIANE GROUP • ARQUUS ASML BARCO NV
B BRAUN MEDICAL BERTIN TECHNOLOGIES
CEGELEC CSTB • DASSAULT AVIATION CEA CEA-DAM CIAE CNES CNIM CNRS . • • . ELI
ESA
ESRF
ETIENNE LACROIX
FIVES MACHINING DGA ECA ROBOTICS DSO GE MEDICAL SYSTEM IMV TECHNOLOGIES IXBLUE GSI HORIBA SCIENTIFIC • HZDR • JOHNSON CONTROLS LABORATORY FOR LASER ENERGETICS LECTRA LIEBHERR AEROSPACE • • LMU • MBDA NATIONAL ENERGETICS • NAVAL GROUP NEW TL NEXANS NEXTER • . • • REOSC ONCOPOLE TOULOUSE OPTSYS • OXXIUS • PEKING UNIVERSITY • RATP ONERA SAVOYE
SIEMENS HEALTHCARE SODERN RUAG SAFRAN SAFT SAINT-GOBAIN . . THALES ALENIA SPACE
TIFLEX SPIE SYNCHROTRON SOLEIL TECHNETICS GROUP THALES . TIFR TRESCAL TRIXELL UNIV. OF NEBRASKA-LINCOLN
UNIV. OF TEXAS
VALEO



## PROCESS LINE

Our production lines are designed on customer specifications. We bring value added for high precision assemblies in controlled atmospheres where operations have to be done with full control of position, pressure and temperature.



**ISP SYSTEM** Z.I. de la Herray 65500 VIC-EN-BIGORRE — FRANCE





# **Automatic Precision** Machine & Process

## PRECISION ENGINEERING - MICRO-ASSEMBLY

**Optical fiber, Electronics, Photonics, Medical** 

## **CUSTOM TURNKEY SOLUTIONS**



AEROSPACE | AUTOMOTIVE | DEFENSE ELECTRONICS | PHOTONICS RAILWAY | LOGISTICS | MEDICAL | NUCLEAR | SCIENCE

🔀 contact@isp-system.fr

www.isp-system.fr isp-system

## A partner in precision engineering for your projects over 20 years: Expertise and creativity!









**OPTICAL FIBER** 

PHOTONICS

ELECTRONICS PACKAGING

MICROMECHANICS

ISP SYSTEM is a comprehensive program in Precision Engineering and is specialized in Design and Manufacturing of High Precision mechanic and mechatronic equipment.

Providing highly innovative and custom solutions is our commitment. Our expertise in precision engineering helps us deliver solutions fitting customer's challenging application needs. Customized products can be offered to fully dedicated turnkey solutions, including design, testing and manufacturing. Our multidisciplinary skilled teams, specialists in their fields, have gained precision engineering knowledge.

ISP SYSTEM delivers annually up to 5 000 embedded actuators to 10 000 micro-positioning devices and opto-mechanism, 50 high precision machines, 2 000 mechatronics modules for medical devices mainly in Europe. ISP SYSTEM has been recently extending its activity all over the world.

ISP SYSTEM provides a spectrum of services including: R&D, Design, Prototype Manufacturing, Industrialization, Mass production, Commissioning, After Sales ...

ISP SYSTEM was founded in 1997. ISP Group is a SME of 100 skilled peoples (including its factories), 30 % of them are graduates. ISP SYSTEM is Quality certified ISO 9001 and EN 9100.



AUTOMATISM & **ELECTRICAL CABINET** 

ISP SYSTEM is member of competitiveness clusters such as "Aerospace Valley", "Alpha-RLH" and "Photonics France" and "Optitec".

## Our process are under control by close loop on positions, temperature, glue deposit and laser welder.

ISP SYSTEM machine's catalogue include process of electronics, photonics and fiber packaging. we develop special processes and instruments for research and production.

- Base granite on dampers in a welded structure
- 4 to 18 high precision axes for active/passive alignment
- 3D vision for pick & place
- Assembly by gluing, welding or laser sintering
- HMI supervisor with AI algorithm

#### **DESIGN BASED ON FUNCTION BLOCK**





Photonic assembly module

**High precision** 6-axis robot



Laser sintering

Glue dispenser





Fiber twisting system on input fiber

# diameter measurement

#### SOFTWARE





Active alignment

Software supervisor (HMI)

Supervisor software has 4 modes for parameters setting-up, recipe edition, manual and automatic production. The recipe tool uses customer libraries for components, final products, sequences of operation and measuring drivers. The supervisor uses Artificial

#### SPECIAL MACHINES AND MEASUREMENT SYSTEMS



Assembly carying

Laser Welding



Fiber Optic Winding Machine



Die Laser **Soldering Machine** 



Photonic Assembly









Fiber tension and





In situ confocal metrology



In situ measurement



Automatic Note Dispenser

Production lines and machines are fully adapted to customer requirements. Our machines incorporate the best technologies available to reach performances. We are able to integrated very high accuracy motion technology designed on purpose by our skilled team of engineers.



Laminar **Coating Machine** 



**Heavy Cabinet** Handling

Our machine are CE certified delivered with user and maintenance manual. Remote maintenance is available through a network-free router. Maintenance contract are available to assure immediate phone assistance and short-term on-site maintenance.

### **TEST AND MESUREMENT SYSTEMS**

Optical fiber traverser unit

Intelligence algorithms for vision recognition, conditional assembly and user script execution. High throughput and large flexibility are combined to reach real accuracy after assembly in the micrometer range.



Micrometric alignment robot **SYNCHROTRON** 

ISP System has built with time a large experience in test and measurement systems with both academic and industrial research. Our competences in mechanics, electronic, photonic & real time automation allows us to design turnkey system with



**Diagnostic system** RESEARCH



HV 8-axis positioner NUCLEAR



Raman spectrometer **INDUSTRY** 

custom IHM. We can design solutions for non-contact metrology of distance, diameter, temperature or optical properties.