electrolinks

A SOLUTION PROVIDER

AS9100D Certified Organisation

ISO 14001 TÜV SÜD ISO 9001 ISO 27001

AS9100D

IPC®

MAKE IN INDIA

ABOUT US

Established in 2011, ElectroLinks Technologies Pvt. Ltd. is engaged in developing ground support equipment to our clients in aerospace industry and also reverse engineering applications. We have garnered diverse orders based on indigenisation of Aircraft Test Equipment (avionics) from Defence & Aerospace industries in India.

We address obsolescence problem, provide CAD/CAM/CAE, manufacturing details parts.We provide services in Laser Tracker and Jig Calibrations. Established as OEM authorised agency for supply of spare parts, catering to Engineering & Aerospace applications.

Our service cater to various industries including Defence (IAF), PSu's(HAL, BEL, BEML Railways) as well as to (DRDO, ISRO)

We believe and pursue innovative approaches to complex business problems and meticulously render our services to clients, changing markets and evolving technologies.

We are constantly in the process of updating our Software/Hardware skills adopting new technologies that can perform better functions and we believe in integrating our skills with our client's inputs to achieve desirable results.

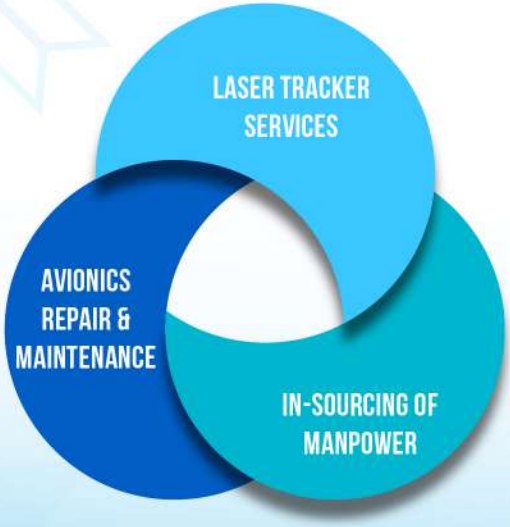
OUR MISSION

Work out meticulously to delight customers and time based accomplishment.

VISION

To extend domain support to Indian Defense organization, various institutions and interface with industries to fulfill requirement.

OUR SERVICE



PANCHI (UNMANNED AERIAL VEHICLE)

NOMENCLATURE : ENGINE ELECTRONICS UNIT [EEU]

CUSTOMER : ADE BANGALORE.

DESCRIPTION

- Panchi is modification of Nishant (Launcher based tactical UAV).
- EEU has been supplied to ADE as per build standard in support with Nishant Team.
- Engine Electronics Unit (EEU) is an electronics interface to receive signals and commands, to suitably condition, modify them and produce electrical outputs to kill the engine. It also monitors the engine related parameters.
- Engine electronics unit (EEU) performs the functions of signal processing of engine related parameters of Nishant (UAV).

LAKSHYA (UNMANNED AERIAL VEHICLE)

NOMENCLATURE : : ENCODER DECODER UNIT (EDU)

CUSTOMER : : HAL A/C DIV, BC.

DESCRIPTION

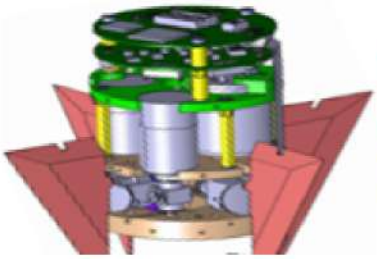
EDU [Encoder-Decoder Unit] is heart of Link Test Set (LTS) a mini Ground Control Station.

ENCODER: The function of this equipment with is to accept analog and digital data, serialize it in the prescribed PCM format and with that as modulating signal generate a frequency shift keyed subcarrier of center frequency 20KHz with a deviation of ±2.5KHz (w.r.t. logic 0 &1).

DECODER: This equipment accepts a subcarrier of frequency 30KHz with FSK data of 2.441Kbits, filters the sub carrier, retrieves the data in the demodulator (FSK), then signal conditioner, shapes the data.The digital stream, regenerated by part of block B1 goes as input to block B2.

DESIGN CAPABILITIES – ELECTRICAL & ELECTRONIC SYSTEMS

On Board Interface Unit



Tail Fin Actuation System

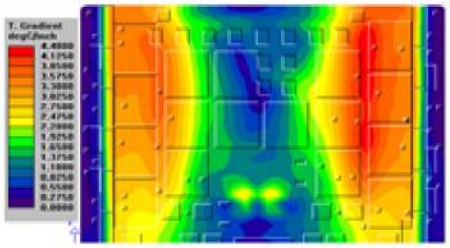


Image Processing

ATE

Embedded System

DESCRIPTION

Domains:

- Electrical Systems
- Mechanical Engineering
- Embedded hardware & Software
- AI & ML: Audio, Video, Image processing
- PCB, Cables and ATE

Expertise in New Product Development from simple to complex systems and solutions - for Military, Aerospace & Ground. We are familiar with MIL461,MIL810, DO160, Do178B -Design Assurance Level A

- Aircraft Power Systems
- Electro Mechanical Systems
- Electronic LRUs

List of System Integration for LAKSHYA (UAV)

- Accelerometer Electronics
- Actuator Interface Unit
- Engine Remote Control Console
- Ground Power Control Console
- Tow Body Indicator
- Shorting Connector
- 28V Supply Box
- Engine RPM Simulator
- Rate & Position Simulator
- PCM Break Connector

JAGUAR AIRCRAFT

BREAK IN BOX TEST SET

DESCRIPTION

The scope of the Break in box is to monitor the voltage and current level at all the pins of ADR (Accident Data Recorder) and DAU (Data Acquisition Unit).

AC DC TEST SET

DESCRIPTION

The electrical power generation test set is designed for checking out the “dormant” circuits of the aircraft electrical power generation system and for checking voltage and frequency values at various points within the electrical generation system.

Operating Voltage 115V AC, 400HZ and 24V DC.

LASER WINDOW TEST SET

DESCRIPTION

The laser window Test Set is used to determine the acceptable degree of sand erosion on the laser window (in terms of laser ranging/target seeking performance) by measuring the light transmission through the window. A transmission level between 45 and 55 percent is considered as acceptable limits (OEM Manual). If the transmission level through the window is lower then, the laser ranging/target seeking performance is so degraded which is not acceptable for which the laser window need replacement

JAGUAR AIRCRAFT

FLAP SLATS EOT TEST BOX

DESCRIPTION

The test set is used for checking the end of travel limit adjustment of the aircraft flaps and slats. It provides interconnections, indicator lamps and switches to enable the micro switch settings of the flap and slat limit switches under test to be checked.

SLAT FLAP TEST SET

DESCRIPTION

The test set is used to carry out comprehensive checks of the aircraft flap & slat system.They provide interconnections, indicator lamps and switches to enable comprehensive checks of the electrical part of the aircraft flap and salt system to be carried out in conjunction with the hydraulic test schedule

LASER WINDOW DEMIST SYSTEM

DESCRIPTION

The test set is used to carry out comprehensive checks of Laser Window Demist System. The toggle switches in the unit are used to carryout electrical checks.

JAGUAR AIRCRAFT

ERSU TEST RIG TR-27

DESCRIPTION

Test rig TR-27 is designed for bench testing of the ERSU 72 series. It provides power for the ERSU and tests all microphone, telephone and keying lines, providing modulation loads and monitoring facilities for external test equipment.

EJB 72 SERIES TEST RIG TR-41

DESCRIPTION

Test rig TR-41 is designed for bench testing of the EJB 72 series junction box. It provides power for the junction box amplifier and test receiver, telephone and microphone lines, signal levels and control lines.

GROUND CREW JACK BOX TEST RIG TR-42

DESCRIPTION

Test rig TR-42 is designed for bench testing of the CCS Ground Crew Jack Box. Itprovides power for the Jack box and tests intercom facility, amplifier output& microphone/telephone lines.

JAGUAR AIRCRAFT

ERSU TEST RIG TR-135

DESCRIPTION

Test rig TR-135 is designed for bench testing of the ERSU 74 series. It provides power for the ERSU amplifiers and tests microphone lines, telephone lines and all switches facilities.

BONDING STRIP

DESCRIPTION

This spare is used for Static discharge on the Jaguar Aircraft. Bonding is the electrical connecting of two or more conducting objects not otherwise connected adequately. Grounding is the electrical connecting of a conducting object to the primary structure for return of current. Primary structure is the main frame, fuselage, or wing structure of the aircraft.

CABLE HARNESS

DESCRIPTION

Harness and cable assemblies starting with functional & interface specifications. Capability to select right components for low loss, high frequency RF cable assemblies type certification/qualification. Testing capability using accredited test laboratories to MIL–STD- & JSS 55555. Harness accessories to meet special requirements such weight, shape, protection etc. Harnesses with integrated mechanical parts. All cable harness meets the IPC-WHMA-A-620 standard.

HAWK AIRCRAFT

C.W.S

DESCRIPTION

The centralized warning system (CWS) test set is used on the aircraft to test the aircraft CWS. The test set can be used to test the CWS with or without the CWS related circuits (attention getters and lighting circuits). The test set is also used, off the aircraft, to test the master control unit together with the central warning panel. The warning panel can be tested independently.
Operating Voltage: 0-28VDC

M.T.B

DESCRIPTION

This Test set is designed to carry out following functions.

System monitoring- functional check of the starting system.

System simulation- check for correct sequencing and the operation of safety circuits in the starting system.

FUEL DIP TEST SET

DESCRIPTION

The fuel dip test box is used in conjunction with a digital timer to perform a series of static checks on the electrical circuits of the fuel dip systems.
The static checks of FDP test set are: Fuel Control Unit (FCU) test, Initial Shot (IS) test & Caption test.
Input Operating Voltage : 0-28VDC

DESIGN CAPABILITIES – MECHANICAL SYSTEMS

OUR MECHANICAL PARTNERS UJJWAL TOOLS AND COMPONENTS

Right from the procurement of raw material to processing and final delivery, our exclusive gamut of electronic panels and components are stringently checked for quality. Our team of quality experts strategically follows quality measures to ensure that our range with superior quality only is delivered to the market. Our associates closely monitor all processes in order to maintain the quality of the products.

CMM

Takisawai : EX 110

AEROSPACE COMPONENTS

EMRU Bracket

Rear Box Bearing

TECHNOLOGY VERTICALS

Embedded Hardware & Manufacturing

- Analog, Digital, Power & Motion Controllers
- Electro Mechanical designs
- PCB Design, Cable Harness, Simulations & Analysis
- Prototyping, Manufacturing & Testing.

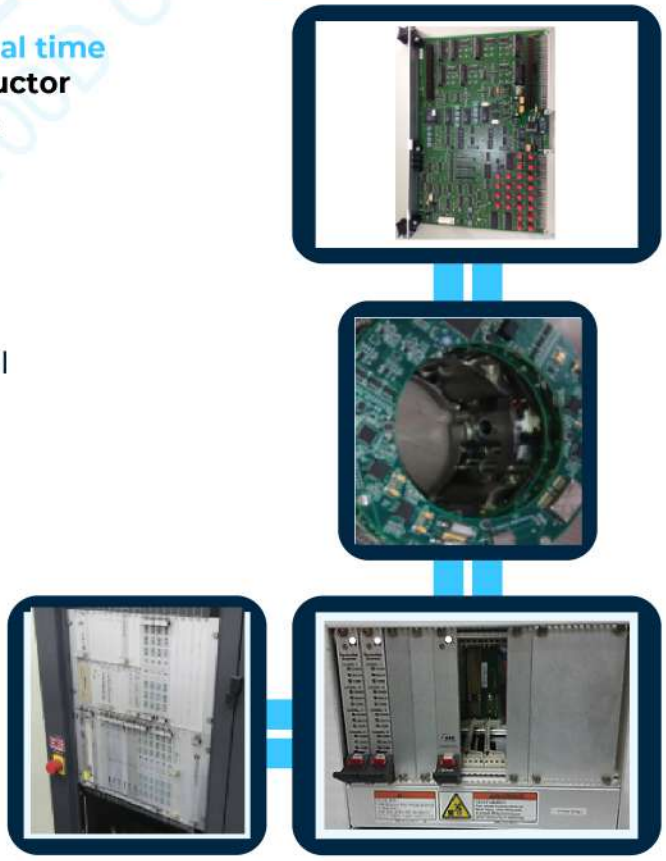
Embedded Sow

- For DSP, MCUs - MISRA C
- For FPGAs - VHDL, Verilog
- White & Black Box testing
- HILS, MILS

EMBEDDED HARDWARE: TI, ST, NXP & INTEL DSP, MCU

Extensive experience in Controllers / DSPs for Real time systems for Aerospace, Industrial and Semiconductor equipment, LRUs, Battery Management systems.

- TI: TMS320F28335, TMS320F28379
- STM: STM32, NXP LPC17xx
- Intel Atom Z series
  - Frequency : 600MHz,
  - Interfaces : PCIexpress, Exp IO, DMA, I2C, SPI, SCI
- Analog Devices ADSP21062
  - Frequency : 32MHz, 31.25 ns per instrucon (min).
  - Memory : 1 Mb, 32K x 32 data memory , 16K x 48 Program memory .
  - Interfaces : SCI, Parallel data bus, address bus.
- Microsemi FPGA ProASIC, Smart Fusion
  - Frequency: 300MHz
  - Interface: Parallel Bus, Serial Bus, ADC,MIL-1553, Glue logic



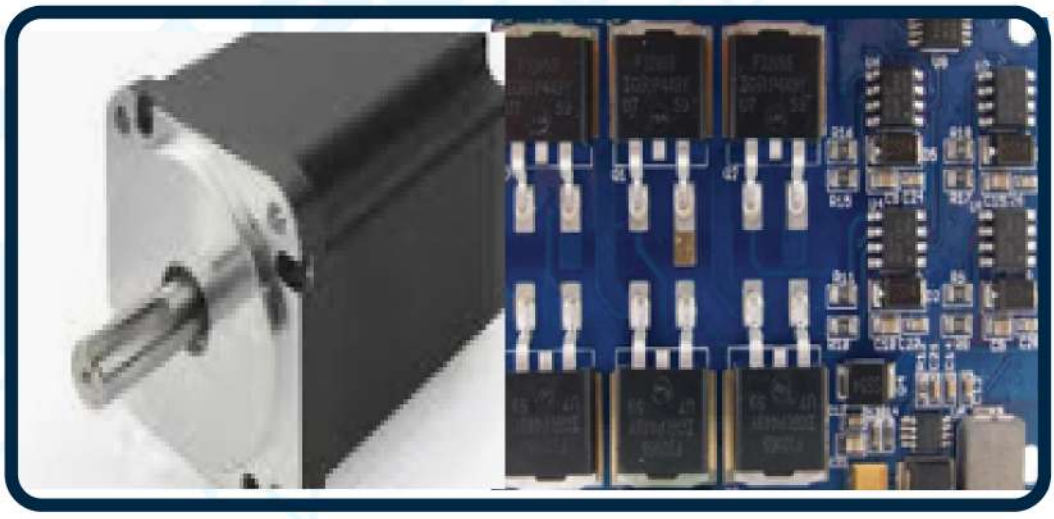
HARDWARE - POWER & MOTION

- Drive circuits: for Flight Control Surface actuation,Wing / Tail Fin control systems, BLDC, PMSM Motor Controllers, Battery Management Systems
  - HV and High current handling
  - Gate Drive circuits, Isolators
  - Current control
  - Dead-me control, Shoot-through protection

- Motion controllers:
  - DC/ BLDC / PMSM Motors, Encoders, Tachos
  - Commutaon glue logic, PWMs

- HILS: Control loop simulation for total product
  - Electronics, Motor, Encoders & Mechanical

- Crucial in design are Noise limiting, High current switching, providing isolation, Thermal dissipation and Safety considerations



AC/DC, DC/DC

Motion Controllers

Drive circuits FET based

HILS

EMBEDDED SOFTWARE

Designed and Delivered Real time Embedded Software for variety of Control Systems.

- ASM & C Language Codingfor 8 / 16 / 32-bit DSP, DSC, ARM Controllers. MISRA C Coding Standards
- Verilog HDL Coding for Highspeed FPGAs and SoCs
- Timing Analysis, Static and Dynamic Testing
- Linux, QT, FreeRTOS

Few of the Applicaons:

- Mission Critical apps meeting DO178B DAL A / B.
- Wing, Tail Fin control Actuation systems - P/PI/PID (Pos / Velocity / Torque / Current control)
- Vector control techniques (FoC)
- Familiarity with Fail Safe & Fail Silent devices
- Modbus, TCP/IP, CANopen, MIL1553 etc
- Data acquisitions and processing

ASM

C \C++

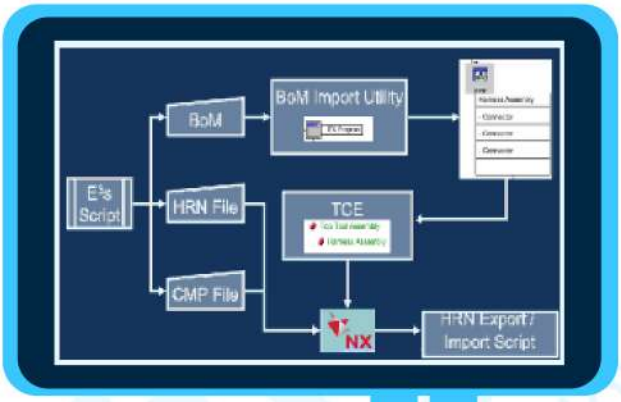
freeRTOS

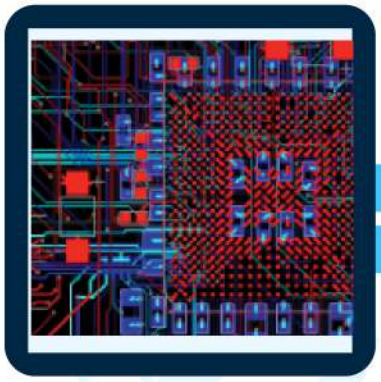
HARDWARE – PCB & CABLE HARNESS

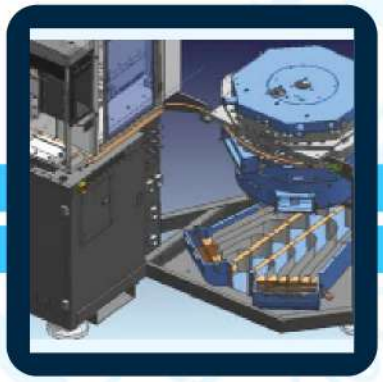
Embedded Hardware & Manufacturing

Expertise in:

- Cable harness design and Mech Routing Integration, Shielding, high voltage high current isolations
- PCB Schematics, Layout, component Library
- High speed design and simulations







TEST SYSTEMS

Experse in:

- Automated Test Setups
- DAQ units
- ICT / Functional Testers

OUR SERVICES

LASER TRACKER SERVICES

We are one of the leading service providers of Laser Tracker Services. With our vast experience in Aerospace, Steel Plants, Power plants, shipping and various large size measurement and validations.

We offer our clients with unmatched range of Measurement using Laser Tracker. These are ideal for making large size measurement in fast and accurate manner. The Laser Tracker makes use of VERISURF measurement software, which enables CAD based measurement and analysis.

Our Engineers have acquired expertise in various domains of measurement such as (shaft alignments) other than providing complete service with our own Engineers. Electrolinks Technologies offers rental services where customer has expertise and experience in handling the Laser Tracker.

Leica AT-402: Short-to-long range measurement applications up to 80 m.

Features:

Laser Tracker: Leica

- Model : AT-402
- Accuracy (MPE): +/- 15µm +6µm/m (+/- 0.0006”+0.00023”/ft)
- Repeatability (MPE): +/- 7.5µm+3µm/m +/-0.0003”+0.00012”/ft)
- Full range 1.5 to 80m
- Infinite Horizontal Rotation: +/- 360°
- Infinite Vertical Rotation: +/- 145°

Elite Customers

HAL Aerospace Division, Bangalore	HAL LCA Division, Bangalore
LRDE	DRDO Bhopal
DRDO Hyderabad	WEG Industries
CNC India Pvt Limited	Gauges Industries
L&T Coimbatore	THE KCP

AVIONICS REPAIR & MAINTENANCE

Our Technicians are trained to troubleshoot and replace malfunctioning electrical and mechanical components.

We repair the instruments that are used to control primary flight operation systems in aircraft.

We’ve developed our own processes that allow us to better understand an issue quickly so we can have it repaired properly.

IN-SOURCING OF MANPOWER

- Internship training programs to College students on Syllabus projects.
- Developing the decision-making skills through involvement in projects as well as in day - to - day business activities in the office during the period of 12 months.
- Apprenticeship training program to candidates for a period of 1 year for students passed out of college.
- Technical Manpower provided to Clients to cater their needs of the company for suitable job work.
- Technical training given to candidates before their interview in the client's place to enrich their knowledge and requirement of the client.

AUTHORISED DISTRIBUTOR

M/S RISBRIDGER .LTD UK

A range of Trolley Despensers are availlable to fictory packed can/drums or with 5,8 or 12 litre refillable reservior.

1130 Series
1 us gallon refillable freestanding vertical action pumps.

951 Series for
1 us gallon round can freestanding vertical action pumps.

Risbridger replenishing pumps have consistently achieved this high standard offiltration excellence over the 50 plus years that we have been a preferred partner to the UK MoD, Aircraft and Engine manufacturers and many of the world's leading civil and military aircraft operators and MRO's.

- Handheld Pumps
- Free Standing Pumps
- Refillable Trolleys
- Non -Refillable Trolleys
- Mobile Dispensers
- 1600 Series Filters
- Anti -Syphon Valves
- Couplings and Accessories

M/S ELIMEC ELECTRO-MECHANICAL ENGINEERING (1988) LTD

M/s Elimec Electro Mechanical Engineering Ltd was established in 1988 in Israel and serves Hi tech Naval, Aerospace, Medical, Navigation, Automotive, Railways, Industrial, Military & Telecommunication industry in mission critical Electromechanical, Optical and Mechanical components and accessories like

MIL specified Connectors, Back Shells, Adapters, Cable Harness & communication Microwave components.

a. Relays, Connectors, Bi-Metal Thermostats, Potentiometers, Solenoids, Actuators & Slip-Rings.

b. Insulating & Heat Conducting Elastomers , customized Gaskets , Compounds & adhesives; Heaters.

c. Lighting for Aircrafts & Vehicles, Night Vision Equipment, Cameras: Heavy Duty and FLIR.

d. Customized & Rugged Keyboards, Joysticks, Hand Grips, Trackballs
e. Switches, Knobs, Flex Printed Circuits (PCB), Cables & Wires; High Voltage Cables, Connectors, Capacitors & Resistors.

Racks & Cabinets, LCD Panels & Screens, Telescopic Slides, Sock-Mounts, RFI/EMI Gaskets & Filters and many more.

OUR CLIENTS

ELECTROLINKS TECHNOLOGIES PVT.LTD

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