

## **CSIR-CEERI List of Goods (Consumable) Planned to be procured for existing projects during FY2023-24**

- IC/Sensor Packages, ICs and Boards
- ICs, electronic components, embedded boards, light sources, detectors, op-amp's, buffers, drives, communication IC's, display's processors, controllers, mechanical items like sheets, rods, nuts, bolts, water sensors, turbidity, nitrate, TDS, pH etc.,
- Lenses, gratings, slits, lamps, sources (UV-VIS, NIR, halogen, deuterium, etc.), detectors, optical fibres, notches, filters
- RF passive components
- RF source (low power)
- Gas collection bag, gas line components, electrical and electronics component like temperature detector, wire etc.
- SS, Copper, Aluminium, etc
- LTCC tape and paste material
- Sacrificial/mixer materials (fugitive tapes for LTCC, carbon tapes), Alumina substrates, thick-film paste (Ag, Pd/Ag, Au, Au/Pt, Pt, etc.), resistor paste series, Screen Meshes, Screen Preparation Materials, Screen printing related materials, Solder pastes, Epoxies, Sealants, Adhesives, Leads, Au/Ag/Pt Bond wires, Chemicals, Potting compounds, Glasswares, High resolution photoplots and masks, PZT powder/paste, PZT plate/disc/ring, Binders, Glass powder, Via-punch tools, Spares/accessories of existing equipment, Lenses & filters, Teflon, Perspex, SS, Nickel, Moly, Brass, Jigs, fixtures, Electronic components (ICs, resistors, capacitors, inductors, diodes, switches, amplifiers etc.), testing related items (testing boards, charge measurement modules), microcontroller boards, GPRS, wifi & bluetooth modules, lcd's, small solar panel, adapters, charge converters, charge amplifiers, cables, batteries and chargers, power banks, COTS sensors, cables, connectors, adapters, pcb fabrication, solder wire, cleaners, cartridges, computer accessories etc
- Electronics Components ICs, Diode, MOSFET, IGBT, Registers, Capacitor, Inductor, Transformer core, High Voltage Wires, General purpose wires PCB Connectors, Microcontrollers, Driver LDO, Buffer ICs,
- wafers (PSS sapphire, Si)
- Photoresist
- Developer
- Metals (Au, Pd, Ni, etc) (4-5 N purity)
- LED packages
- Electronics components & MCPCB
- wafers (GaAs/InP)
- Sputtering targets (ITO)
- Miscellaneous goods
- Quartz materials and optical components, metal and insulating materials (Vacuum Grade), alloys, mercury, electrical components, testing and circuit components, fabrication of parts, etc.
- UV Lamp Power Supplies
- Glove Port Fume Hood
- software (model libraries)
- Software (general purpose, tool boxes)

- Metal sheets, rods, profile channels of different dimensions (SS, Aluminium, etc.) of customized size
- Electrical & electronics items such as transformer, magnetron heads, transistors, inductors, coaxial cable, power substrates, evaluation boards, capacitor, transitions, diode, switches, Fuses, wire, matched load etc
- "Non-metallic sheets & rods of different dimensions (PTFE, Nylon etc.), ceramic/quartz glass components,
- Thermocouple, RF Choke, screws, nut-bolts, cutter blades, thermocouple readout ckts"
- Frequency measurement boards, display devices, RF leakage detector
- Data analysis Software
- Minor lab apparatus like water bath, mixer, homogenizers, UPS
- include optical sources, detectors, filters and windows, electronic components, enclosures, chemicals, mechanical parts, electrodes and multi-layer PCB fabrications etc.
- Chemicals/ essential oils (Lemongrass oil + vetivar Oil+ Mentha Arvenis Oil etc)
- PPE Kit, Gloves, Tissue Papers, Glossy Papers, Bond Papers, Robotic kits, Cartridge/ toner/ Ink, Folders, Pen, Paper, Silicon spray, connectors, USB cables, Wires, Silver Paste
- ARVR Animation making SW and Tools
- power Supply (SMPS) 1000W and above
- Brain signal motifs (for BCI Interface)
- External HardDisk
- Motors
- Jetson Nano/ Xavier Boards
- RAM Sticks
- Screen Recorder
- AV Accessories (Speakers, Mic, Camera etc - set)
- Circuit Making Ink Pen
- PCB (consumables: Resistors, Capacitors, LEDs, Solder Paste etc.)
- Plex Sheet
- Consumable for 3D printer
- LCD Panels for PCB
- GPU Cards
- DIY Kits (Ardublock, Lego and other boards)
- Misc. for Office/IT (Batteries, Multimeters, USB drives, Google/Microsoft Storage space, USB adapters, File organizers, Computer Multimedia items like webcams, speakers, mic etc)
- Brazing alloys
- Metalized Ceramics
- RF window for Klystron
- WR 284 waveguide RF load
- Brazing Alloys with various specifications
- Molybdenum, OFHC Copper, SS, Monel, etc.
- RF window
- High voltage ceramic
- Chemical Material
- K-10 Tungsten rod
- Ion Pump Controller
- Thermocouple and vacuum components

- Raw material like sleeve, heater wire etc
- Fused silica/quartz tubes
- Electrical/Power electronic components
- Parts fabrication & upgradation related item
- PG remover
- wafers (pss)
- nobel metals (Au, Ag, Ni 4-5 N purities)
- Substrates (Different types), Targets, Potting Compounds, Glass Powder/ Paste, Printing Material/Pastes, Windows, Metal/alloy sheets etc.
- Silicon Wafers
- Filters and windows
- TMAH and other Chemicals
- Packages
- Sputtering Targets
- Lithium Tantalate
- Electronic components Such as microcontroller, SOIC's, ADC, Op-AMP and other components etc.
- Optical Lens, Gratings, Mirrors for NIR spectroscopy
- NIR LED's and Other sources
- Digital Micromirror Devices and their drivers
- Mechanical Assembly components
- InGaAs detector
- Electronic components Such as microcontroller, Op-AMP and other components etc.
- IR Detector Array
- Fabry Perot IR Detector
- ATR Crystals (ZnSe)
- Demountable IR Flow Cells (Variable Pathlength)
- IR Windows (ZnS, ZnSe)
- IC's, electronic components, embedded boards, light sources, detectors, op-amp's, buffers, drives, communication IC's, display's processors, controllers, mechanical items like sheets, rods, nuts, bolts etc.,
- Lenses, gratings, slits, lamps, sources (UV-VIS, NIR, halogen, deuterium, etc.), detectors, optical fibres, notches, filters
- Vacuum components, ICs, cable and connectors, SS/copper/ aluminium sheets, pipe fitting, feed throughs, sensors, detectors, vacuum gauge, other small items
- Turbo compact pump, Detector, RF Source, power supply, vacuum gauge, small other equipment
- RF Radiation Meter
- Electronic Components
- Standard casing for prototype
- Methane gas
- sensors
- Winding of copper coil
- Transport charges
- Aluminium target
- Refilling of nitrogen gas

- Alloy, gas line components
- Characterization solutions
- Colorimeter, empty cell
- Base fitting arrangements
- Fabrication Al jacket
- Fabrication of "DRIE-based MEMS Inertial Sensor (Accelerometer)"
- Battery bank
- service charges of 160 kva 80 kva UPS
- Power supply upgrade and components
- Plastic trolley
- Sodium 3 etc
- Liquid Nitrogen
- Transportation of chemical benches
- Battery (different specifications as required by different projects/ equipment etc.)
- Liquid Nitrogen
- Liquid nitrogen tank
- Renewable of adobe creative SW
- General Chemicals for Semiconductor/ MWD Labs
- Refiling nitrogen gas
- ABS Material battery
- Gloves
- Rotary chuck etc
- Al sheet, pump etc.
- 12V battery
- GS Dielectric etc
- 4594.63-H72 PS2X4C2-AU S1.5(sensors)
- Filters
- Citric acid monohydrate
- MS Sq pipe, angle etc
- Repairing mother board
- PLA Black etc
- Infrared emitter HIS 2000 RO etc
- Part number 588237, S86744
- CF Card
- 9v battery etc
- Sputtering Target Gold 3" and 4"
- Sputtering target Platinum 3" and 4"
- Cables 5Core 4sqmm, 6sqmm,10sqmm
- trade test material for mechanical
- trade test material for Civil
- Trade test Material for Electrical
- Chemicals
- Chemical waste disposal
- Electronics components ICs, Board
- Laser Dicing Consumables
- Glass ware and cleanroom Aprons etc.

- Internet lease line
- AMC software
- LAN cable, switches, wifi, IO Port, tools, UPS batteries, Racks, Modules
- Wire bonding tools and wires
- Refrigerated Bench top Centrifuge
- Refrigerated/ Heating Circulator
- Angle Rotor 36\*15 ml
- Horizontal Autoclave
- Needle Burner
- Standing BP Apparatus
- Stethoscope
- Horizontal Laminar Air Flow
- Other miscellaneous items
- Vacutainer EDTA Vials
- Vacutainer Needles 21 G
- Vacutainer adapter
- Gloves, mask, face shield, sanitizer, hand wash, bio hazard bust bin bags etc
- Chemicals like methanol
- Tube, aa, aaa cell, tape etc
- Microtips, cotton roll, tissue paper,
- Spray, clearer, towel, bedsheet etc
- Other miscellaneous items
- Silicon/Silicon-on-Insulator Wafers
- Parts of the Equipment
- Pyrex/Borofloat Glass Wafers
- High purity chemicals/PR and developers
- Electronic components/ICs: Amplifiers, Memories, Microcontrollers, Converters; Integrated Circuits; Interface Circuits
- Sputtering target – Aluminium, Chromium, Titanium, etc.
- Laboratory Accessories
- UT Devices Probes
- Ring Magnet
- APBN Rods
- Spares for vacuum pump
- Hi Voltage DC Tester with Accessories
- IC's, electronic components, embedded boards, light sources, detectors, op-amp's, buffers, drives, communication IC's, display's processors, controllers, mechanical items like sheets, water sensors, turbidity, nitrate, TDS, pH, rods, nuts, bolts, etc.,
- Drone Camera
- Drone Motors/Propellers/ESC
- "Remote controller
- and telemetry incl. accessories"
- 4G telem and RTK GPS
- Battery and FCU and accessories
- Companion computers/ Single Board Computers/ SBCs
- GCS Laptop

- Gold metal
- Packages
- Photoresist
- OFHC copper
- SS rod
- SS sheet
- Brass rod
- Perspex rod
- Perspex sheet
- Micro-machining tools
- Computer accessories like RAM, hard-disk, pen-drive, batteries
- Stationery items and printer cartridges
- High frequency waveguides and cables
- Micro-machining tools
- Single-board-computer based electronic circuits
- Vacuum components like flanges, breakers, adapters
- OFHC Copper
- Ceramics
- Resistors, Capacitors, Inductors, Sensors etc.
- Source Measuring Unit/ SMU
- Graphene Ink
- Silver Conductive Paste (Ag, Purity: 99.9%, APS : 10-20nm)
- Laptop battery, SSD 2TB NVME
- Prosthetic Hand kit
- EEG bands minimum 12 channels
- Copper and Aluminium Tape
- Xanthum Binder for Graphene Adhesion on PDMS
- Lipo. /AAA/AA Batteries and their driving circuit.
- BLE Earphones
- Converter boards, ADC/DAC,
- Embedded boards (Arduino/TI/Pi/others)
- USB cables type c/micro/OTG
- Glass Beaker 25 ml/ 50 ml
- Transparent Cups with spoon
- Plastic Box
- micro pipet 1000 ul
- Velcro Tape 1 inch
- nRF24L01 Wifi module
- Pi Pico w
- Raspberry Pi 4
- Screen Display Touch
- Suction/ Air pressure pump/ motor
- Pipes
- Hand Gloves
- Lora Module
- Arduino NANO

- "High purity Gases (Krypton, Chlorine, Xenon, etc.)
- gas line and vacuum line components,
- quartz materials and optical components,
- metal and insulating materials (Vacuum Grade),
- electrical and pulsed power components,
- electrical and optical measuring accessories, Fabrication, etc."
- Miscellaneous items (computer accessories, cartridges, etc.)
- Gauges and controllers
- Halide Gas Scrubber
- VUV/UV Intensity Meter
- Trichloro(1H,1H,2H,2H-perfluorooctyl) silane
- (3-Mercaptopropyl) trimethoxy silane
- Au granules (10 gm)
- Polydimethylsiloxane (PDMS)
- Miscellaneous Electronics/ Electrical Items
- RGB Camera, Vision Sensors
- Robotic Manipulator High Speed Vision Sensors
- Drone Vision Sensors
- Embedded Platforms for Processing of Vision Sensor Data from Different Sensors
- Electronic components for heating module and overall electronic system
- SBC/embedded board/microcontrollers
- electronic components for data acquisition system
- components required for actuator integration
- MEMS sensors (pressure, temperature, accelerometer, gyroscope, microphone), BMS, Battery, TxRx Boards & Kits, TPMS SoC kit
- Embedded boards (SoC)
- Internet of Things (IoT) enabled- Devices, sensors also include all cell, battery, power cables, and other minor components needed for data collection and portable data loggers
- Semiconductor devices, cables, controllers, passive devices, Actuators, control modules, communication & web publishing modules
- Embedded development Boards
- Processors Chips, OLED, optical and other sensors, batteries, switches, steering wheel covers with conductive clothes
- Soldering accessories, USB cables,
- EEG Device Consumables used for Data Collection, Sensor Connectors, other required Software Modules and hardware components/accessories
- Electronic boards and consumables, consumables for computers and software modules.
- Hardware Accelerators, Embedded Platform Components, batteries, spares for existing drones payloads
- Components and Connectors for vision sensors with drone, connectors for embedded platforms, required Software Modules and hardware components/accessories.
- Sensors for image capture and obstacle avoidance purpose, microcontrollers, electronic components for data acquisition, and components required for integration,
- Battery for UPS, Hard Disk for data collection and storage
- Storage expansion system (Expansion kit, HDDs, GPUs)
- FPGA/ Embedded Platforms with Vision Sensors and Synchronization Setup

- Edge Analytics Platforms
- Printer Accessories, Connectors, Cables etc.
- Semiconductor switches (IGBTs/MOSFETs), gate drivers
- Microcontroller boards
- DSP Devices & Boards
- Displays, connecting wires, connectors, heatsink, fans etc.
- PFC circuits controller and drivers
- Passive components (capacitors, inductors. etc)
- High-voltage cables
- High-voltage capacitors
- Printed Circuit Boards (including fabrication)
- Electronic ICs
- Op-amps, current and voltage sensors, soldering wires, MCBs etc.
- X-ray Apron
- Embedded development boards, Processors Chips
- OLED, ECG electrodes, Sensors, Lithium Batteries,
- switches, steering wheel covers, conductive Fabrics, Conductive sheets,
- Multiple gauge wires, PCB soldering Stand, Soldering accessories,
- Multiple type USB cables
- Printer Cartridges, Memory card reader, Stationaries, Paper Ream, File folders
- Storage SSD, HDD
- Demountable IR gas Cell (Evaluation Kit)
- Demountable IR Gas Cell
- ZnS IR windows
- ZnSe IR Windows
- THz optical accessories (lens, mirrors, beam splitter, etc.)
- Fibre cleaning kit
- Electronic accessories
- THz VCSEL lasers
- Embedded development boards with SDK
- Sensors, RF Modules and Actuators
- Printer cartridges and toners
- Photo-optic units consisting of light sources, lenses, collimation units, probes, fibres, mounts, detectors and other accessories
- Batteries, power supply modules, power backup and UPS
- Hard disk & pen-drive
- Storage racks and bags
- Digital communication/presentation aid – cameras, audio headset, wireless keyboard/mouse and graphic tablet
- Assorted cables, Connectors, Convertors, Extension cords & boards, and Adaptors
- Raw materials and tools for mechanical fabrication work such as aluminium/MS frames, aluminium/copper sheets, assorted nuts, bolts, bearings, springs, etc; rubber/plastic hose; solenoid valves; and other accessories
- Cleaning aid including solutions, sanitisers, gloves, masks
- Training Programs and Workshop
- Stationary items