

# AY-ENERGIES

# Providing

# **Training Infrastructure to Security Forces**





### **About Us**

**AV-Energies** is an ethical, responsible leader in providing training infrastructure to security forces as well as renewable energy solutions. The leadership team comprises ex-Army officers who have made successful corporate transitions post command of their units.

We understand the operational and training requirements of the security forces well; we have a deep desire to contribute meaningfully to enhancing their operational preparedness and effectiveness. We can contribute meaningfully in creating high-quality customized training aids for security forces (IED, mines, basic training, NBC, mechanical engineering and software based models, small arms range equipment and physical fitness lab equipment).

<ul> <li>MEG, Bengaluru • BEG,Roorkee • BEG, Pune • Inf School, Mhow • IMA, Dehradun • CME, Pune</li> <li>Institute of IED Management, CRPF • BSF Academy • CEDUs • Bomb Disposal Unit, NSG • JRC</li> </ul>
Bareilly • CBS, Khrew • CIJW, Vairengte, Mizoram • Engineer Regiments • CMM, Jabalpur • Rashtriya Rifles Battalions • Assam Rifles Battalions • Karnataka Police • Bengaluru
International Airport • Various Security Agencies • Air Costa • TATA Singapore International Airlines

◆ Counter IED Training Kits (set of 8), with Manuals: For squad-post/outdoor training – a set covers the entire range of basic counter IED trainingviz types of explosives, IED components/types, switches, shaped charges, incendiaries, grenades, suicide vests, rural and urban advanced IED

models.

Some of our esteemed customers are: -

Some of our key offerings are: -

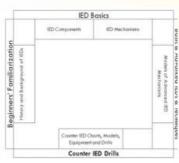
 CIED Model Rooms: Includes open circuit mechanisms, application models, charts &working mechanism boards – accompanied by write ups, with the history & use scenarios of different IEDs and counter IED techniques.

- Counter IED Training Labs: These include inert materials to fabricate and take apart IED circuits and provide hands on experience in various IED components, circuit and methodologies- an essential per-requisite for defeating IEDs.
- Software Controlled IED Training Range (SCITR): Conducting counter IED exercises ranging from recovery ops, post blast investigation, exercises like cordon & search, road opening, area securing and Counter IED Equipment training.
- SAVIOR ROV (Remotely Operated Vehicle): ROV provides state-of-the-art technology for infantry troops, combat engineers and mobile EOD technicians.
- Training capsules: Includes audio visual training experienced, ex-forces instructors with NSG and overseas experience and demining training.
- Upgrading existing infrastructure: Through provision of charts, working models, mines and shaped charges models, etc.
- Electronically controlled mechanized target system for CQB and reflex shooting ranges.
  State-of-the-art equipment for physical fitness labs.
- ◆ NBC Defence Training: Charts, models and simulators (e.g. Radiological recce simulator).



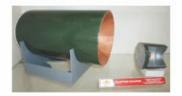
# **IED Model Room**







# Application Models -









# Open Circuit Mechanisms -









# - Charts and LED Display Boards -







# **Counter IED Training Kits**

## with Manuals



 Recognizing and Dealing with Explosives



2. IED Basics



Understanding and Dealing with Initiating Mechanisms



 Understanding and Dealing with Remote Initiating Mechanisms



5. Dealing with Suicide Vests and Suicide Bombs



Shaped Charges, Incendiaries and Grenades



7. Advanced Rural IED



8. Advanced Urban IED

# **Counter IED Lab**



### Features:

- Understanding and Identifying Explosives
- Accessories for Demolition/ IED assembly
- Initiating Mechanisms
- Incendiary Devices, Shaped Charges and Grenades
- Advanced IED Models
- Basic Familiarization with NBC Warfare
- Lab Tools and Lab-work Manuals



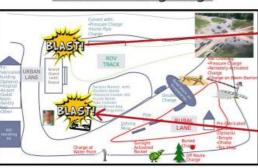






# Software Controlled IED Training Range (SCITR)

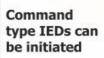
### **Outdoor Training Range**



### **Control Room Screen**



Blast on site seen on screen







### Features:

### Up to 3 side Training

- 1 Sided- Security Forces Training
- 2 Sided- Security Forces and Terrorist
- 3 Sided-Security Forces, Terrorist and Bystanders

### Wireless Based IED Mechanisms with Simulated Blast, Audio and Smoke

Makes training realistic

### Variable IED Emplacements

- Multiple emplacements provided
- IEDs can be shifted around so that each exercise is 'new'

### CIED Exercise Sets (Equipment is provided in sets)

- Security Forces Equipment Set
- Terrorist/Insurgents Set
  - IEDs Set
  - Post Blast Investigation Set
  - Suicide Bomber Set
- Bystanders and Scenarios Set (to depict bystanders and different scenarios)

### Control Room with Control Panel: With real time view of IED blasts

- Blasts on range are seen on LED screen
- Command type IEDs can be initiated
- Live video of exercise is seen on a separate screen, if surveillance cameras are fitted

### Squad Posts and Demolition Pits

- For classroom Training
- For actual Demolition training



### Advantages: -

Comprehensive training on all possible Counter IED Scenarios

- Detection, identification, neutralization, destruction/ disposal
- Recovery Post Blast Investigation, Drills in Counter IED Environment

Training Realism: By introducing realistic scenarios, bystanders and actual CIED tasks

Training Flexibility: Due to flexible infrastructure provided

Exercise Monitoring and Control: through the Control Panel



# SAVIOR ROVs

### **ROV** with Seamless possibilities

Savior ROVs are modular, multi mission robots designed for disposal of improvised and other explosive devices weighing up to 15 kg (as per model). Built on diversely configurable versatile chassis, Savior ROVs can be quickly configured based on the needs of the mission such as bomb detection, reconnaissance, search and other life-threatening tasks.

Savior ROVs have a dexterous and simple 'gaming' type controller. The portable and fully loaded Savior ROVs can enter areas that are inaccessible or too dangerous for people, providing state-of-the-art technology for infantry troops, combat engineers and mobile EOD technicians.



- Detect Explosives
- Visual Inspection
- Check Point / Vehicle Inspection
- Navigate Confined Spaces
- EOD/Bomb Disposal
- Route / Building Clearance

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### Features:

- Transportable in a small vehicle like a car.
- Highly mobile, with cross country mobility and speed up to 5 kmph (1.4 m/s).
- Excellent obstacle crossing capability- can negotiate obstacles up to 8 inches high and up to 1 foot wide.
- Slope negotiation up to 30 degree gradient.
- Detect and dispose of bombs and other Improvised Explosive Devices (IEDs) with ease.
- Can be fitted with various detectors for detecting sophisticated bombs and IEDs (e.g. metal detector, Nonlinear Junction Detector, etc.)
- Equipped with a water gun disruptor to destroy an IED.
- Multiple IR illuminated cameras for both day and night operations.









# **Counter IED Equipment**

Complete range of equipment for detection, disposal/destruction of improvised explosive devices





















# Solar Products for Security Forces





### Solar Table Lamps and Homelights

For offices, isolated posts and detachments, patrols and as part of mobilisation stores



### Solar Power Packs 50W onwards

For offices, barracks, quarter guards. cookhouses, dining halls and community halls



### Solar UV Based RO Water Purifiers

Recommended Sizes;

- 100 litres per day (LPD) for a Section Post
- 200 LPD for a Platoon Post
- 500 LPD for a Coy Post





### Solar and AC LED Based Security Lights

For distant posts, quarter guard, periphery security, ammunition dumps



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