

Muntra, country's first unmanned tank, rolls out from the Chennai lab

Chennai: Defence Research and Development Organisation (DRDO) has developed an unmanned, remotely operated tank which has three variants - surveillance, mine detection and reconnaissance in areas with nuclear and bio threats. It is called Muntra. Though developed and tested for the Army by Combat Vehicles Research and Development Establishment (CVRDE) in Avadi, paramilitary has expressed interest to use them at Naxal-hit areas. That will require a few modifications.

The two remotely operated vehicles designed like an armoured tank were on display at an exhibition - Science for Soldiers - organised by DRDO as a tribute to former President APJ Abdul Kalam at CVRDe in Avadi.

Muntra-S is the country's first tracked unmanned ground vehicle developed for unmanned surveillance missions while Muntra-M is for detecting mines and Muntra-N is for operation in areas where there is a nuclear radiation or bio weapon risk.

The vehicle has been tested and validated at Mahajan field firing range in Rajasthan under dusty desert conditions where temperatures touched 52 C. Army comfortably tele-operated the vehicle. It has surveillance radar, an integrated camera along with laser range finder which can be used to spy on ground target 15km away - may be a crawling men or heavy vehicles.

The exhibition also showcased CCPT vehicle which is a remote command centre.

From a helmet-mounted night vision to nano-driven thermal and electromagnetic protection and laser weapons, DRDO showcased hundreds of products in an exhibition aimed at boosting the confidence of its employees and to change a negative perception towards the organisation in the government at heavy vehicles factory.

Besides heavy vehicles, DRDO labs also showcased a few inventions like a handheld wall penetration radar which if placed on a wall will project on a screen the presence of people inside a building and also a nano-based electro-magnetic shield which protects combat systems from electromagnetic attack and also a GSM monitoring system which helps to listen in on encrypted calls of mobile phones.

DRDO chairman S Christopher said the products displayed would convey the technical competence of the organisation to the soldiers and the society. He also said DRDO was working on installing AWAC (Airborne Early Warning and Control System) on an A330 aircraft. The system is now perfected for use on a smaller Embraer plane. The exhibition will be open to the public on Sunday.

DRDO is looking for exporting version one or two of some weapon systems which become redundant for the Army because they have acquired newer versions, said its chairman S Christopher on Friday.

After inaugurating an exhibition that showcased a wide range of products that they were in talks with countries to export weapons and systems that are phased out by the Army due to acquisition of latest versions, he said, "Older versions are good for some countries which have shown interest. Some of the systems under development too could be exported. It would also create goodwill."

He, however, did not reveal name of any country. He also said DRDO had urged the government to "allow us to test the products which we may not want immediately but can still be developed and exported. Torpedoes, rockets and missiles are a few products that are being considered for export." He gave the example of Pinaki rocket as latest GPS-driven ones have been developed.

Christopher also said DRDO products were ranked well world over. "We are fourth in the world in AWAC and fighter planes, fifth in missiles. Arjun is not far away from being the best among some countries."

As the thrust is on roping in private companies, DRDO is looking at capitalising on intellectual property. Private companies are being roped in because they are better placed to market and manufacture DRDO

products and the Army seems to be more receptive when products are presented by private companies. Already 1 lakh crore has been generated in two years.

"If we can generate 5 lakh crore in five years we do not have to depend on government for funds," he said.



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In a first, DRDO develops unmanned tank Muntra; from detecting nuclear, bio weapons to mines, here is all you need to know

Government agency Defence Research and Development Organisation (DRDO) has recently developed an unmanned tank that can remotely operate and has named it 'Muntra'.

Government agency Defence Research and Development Organisation (DRDO) has recently developed an unmanned tank that can remotely operate and has named it 'Muntra'. The agency has developed the tank in three different variants to tackle any kind of situation- for surveillance, another for mine detection and a third variant for reconnaissance in areas with nuclear and bio threats, according to a Business Insider report. The tank which is a first of its kind in the country has been developed and tested by Combat Vehicles Research and Development Establishment (CVRDE) in Avadi for the army, while the paramilitary has expressed its interest in using them in the areas that have been affected by the Naxals.

Recently two vehicles that have been designed like an armoured tank were recently displayed at the Science for Soldiers exhibition that was organised by DRDO as a tribute to former President APJ Abdul Kalam, who was also known as the Missile Man of India. During the testing of the vehicle, it was found that its surveillance radar that includes an integrated camera can be used to spy on targets that are 15 km away.

More about the variants of the unmanned tank 'Muntra'-

Muntra S – This variant has been developed to carry out unmanned surveillance missions.

Muntra M – This variant has been developed for detecting mines.

Muntra N – This variant will be deployed in areas where nuclear radiation or the risk of bio weapons is high.



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DRDO showcases unmanned 'Muntra' tanks; may help fight Naxals

India's first indigenous unmanned, remote controlled tank, developed by the Defence Research and Development Organisation (DRDO), has been rolled out of the Chennai lab.

'Muntra', as it has been dubbed, has three variants - surveillance, mine detection and reconnaissance in areas with nuclear and bio threats.

Though developed and tested for the Army by Combat Vehicles Research and Development Establishment (CVRDE) in Avadi, paramilitary forces have expressed interest to use them at Naxal-hit areas. This will require a few modifications.

The two remotely operated vehicles designed like an armoured tank were on display at an exhibition - Science for Soldiers - organised by DRDO as a tribute to former President A P J Abdul Kalam at CVRDe in Avadi.

Muntra-S has been developed for unmanned surveillance missions, whereas Muntra-M is built for detecting mines. Muntra-N will be deployed in areas where nuclear radiation or bio weapon risk is high.

The vehicle has been tested at Mahajan field firing range in Rajasthan under dusty desert conditions where temperatures touched 52°C. It has surveillance radar, an integrated camera along with laser range finder which can be used to spy on ground target 15km away – which may be a crawling men or heavy vehicles.

The exhibition also showcased a CCPT vehicle which is a remote command centre.

From helmet-mounted night vision to nano-driven thermal and electromagnetic protection and laser weapons, DRDO showcased hundreds of products in an exhibition aimed at boosting the confidence of its employees and to change a negative perception of the organisation in the government.

Besides heavy vehicles, DRDO labs also showcased a few inventions like a handheld wall penetration radar which if placed on a wall will project on a screen the presence of people inside a building, a nano-based electro-magnetic shield which protects combat systems from electromagnetic attack, and a GSM monitoring system which helps to listen in on encrypted calls on mobile phones.

S Christopher, the DRDO chairman, said the products displayed would convey the technical competence of the organisation to the soldiers and the society.

He also said DRDO was working on installing AWAC (Airborne Early Warning and Control System) on an A330 aircraft. The system is now perfected for use on a smaller Embraer plane.

The exhibition will be open to the public on Sunday.

DRDO is looking for exporting versions of some weapon systems which have become redundant for the Army because they have acquired newer versions, said Christopher on Friday.

"Older versions are good for some countries which have shown interest. Some of the systems under development too could be exported. It would also create goodwill," he said. He however did not name any country.

Christopher also said DRDO products were ranked well the world over. "We are fourth in the world in AWAC and fighter planes, fifth in missiles. Arjun is not far away from being the best among some countries."

As the thrust is on roping in private companies, DRDO is looking at capitalising on intellectual property. Private companies are being roped in because they are better placed to market and manufacture DRDO products and the Army seems to be more receptive when products are presented by private companies. Already 1 lakh crore has been generated in two years.

"If we can generate Rs5 lakh crore in five years we do not have to depend on government for funds," he said.



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DRDO Has Developed The Muntra, India's First Unmanned Tank For The Army

Defence Research and Development Organisation (DRDO) has developed an unmanned, remotely operated tank which has three variants - surveillance, mine detection and reconnaissance in areas with nuclear and bio threats. It is called Muntra. Though developed and tested for the Army by Combat Vehicles Research and Development Establishment (CVRDE) in Avadi, paramilitary has expressed interest to use them at Naxal-hit areas. That will require a few modifications. The two remotely operated vehicles designed like an armoured tank were on display at an exhibition - Science for Soldiers - organised by DRDO as a tribute to former President APJ Abdul Kalam at CVRDe in Avadi. Muntra-S is the country's first tracked unmanned ground vehicle developed for unmanned surveillance missions while Muntra-M is for detecting mines and Muntra-N is for operation in areas where there is a nuclear radiation or bio weapon risk.

The vehicle has been tested and validated at Mahajan field firing range in Rajasthan under dusty desert conditions where temperatures touched 52 C. Army comfortably tele-operated the vehicle. It has surveillance radar, an integrated camera along with laser range finder which can be used to spy on ground target 15km away - may be a crawling men or heavy vehicles. The exhibition also showcased CCPT vehicle which is a remote command centre. From a helmet-mounted night vision to nano-driven thermal and electromagnetic protection and laser weapons, DRDO showcased hundreds of products in an exhibition aimed at boosting the confidence of its employees and to change a negative perception towards the organisation in the government at heavy vehicles factory.

Besides heavy vehicles, DRDO labs also showcased a few inventions like a handheld wall penetration radar which if placed on a wall will project on a screen the presence of people inside a building and also a nano-based electro-magnetic shield which protects combat systems from electromagnetic attack and also a GSM monitoring system which helps to listen in on encrypted calls of mobile phones.

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Chennai: DRDO is looking for exporting version one or two of some weapon systems which become redundant for the Army because they have acquired newer versions, said its chairman S Christopher on Friday.

After inaugurating an exhibition that showcased a wide range of products that they were in talks with countries to export weapons and systems that are phased out by the Army due to acquisition of latest versions, he said, "Older versions are good for some countries which have shown interest. Some of the systems under development too could be exported. It would also create goodwill." He, however, did not reveal name of any country. He also said DRDO had urged the government to "allow us to test the products which we may not want immediately but can still be developed and exported. Torpedoes, rockets and missiles are a few products that are being considered for export." He gave the example of Pinaki rocket as latest GPS-driven ones have been developed.

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DRDO rolls out India's first unmanned tank Muntra

Muntra tanks are the first unmanned tanks In India. Read on to know how its three variants will help Indian Army and the paramilitary forces.

By Sriparna Ghosh

The Defence Research and Development Organisation (DRDO) has developed India's first unmanned tank which has three variants for surveillance, mine detection and reconnaissance in areas with nuclear and bio threats.

These remotely operated tank called Muntra was developed and tested for Indian Army by the Combat Vehicles Research and Development Establishment (CVRDE) in Avadi. However, the paramilitary has also expressed interest in using them in Naxal-hit areas.

Two of these tanks were put on display at an exhibition - Science for Soldiers - organised by the DRDO as a tribute to former President APJ Abdul Kalam at CVRD in Avadi. The tanks are designed like an armoured tank.

What does the tank do?

The Muntra-S is the first tracked unmanned ground vehicle which will facilitate the security forces in conducting unmanned surveillance missions. While the Muntra-M is for detecting mines, the Muntra-N is for operation in areas where there is a nuclear radiation or bio weapon risk.

These tanks were tested and validated at the Mahajan field firing range in Rajasthan which is well known for its rough terrain and extreme weather conditions.

The vehicles were exposed to dusty desert conditions where temperatures touched 52 degrees Celcius. But the Indian forces comfortably teleoperated the vehicle.

The Muntra is also equipped with surveillance radar, an integrated camera along with laser range finder which can be used to spy on ground targets like crawling men or heavy vehicles up to 15km away.

Apart from the unmanned Muntra tanks, the exhibition also showcased exhibition also showcased CCPT vehicle which is a remote command centre, helmet-mounted night vision, nano-driven thermal and electromagnetic protection and other laser weapons.



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India's first unmanned tank Muntra is here. Here are the details

India's first unmanned tank developed by the Defence Research and Development Organisation (DRDO) has been rolled out of the Chennai lab. Muntra, the unmanned tank, has three variants - surveillance, mine detection and reconnaissance in areas with nuclear and bio threats.

It is likely to be used in Naxal-hit areas. Recently, two remotely operated vehicles designed like an armoured tank were on display at an exhibition as a tribute to former President APJ Abdul Kalam. Muntra-S has been developed for unmanned surveillance missions, whereas Muntra-M is built for detecting mines. Muntra-N, on the other hand, will be deployed in areas where nuclear radiation or bio weapon risk is high.

The vehicle has been tested. It's surveillance radar, which has an integrated camera can be used to spy on ground target 15km away. DRDO chairman S Christopher said the organisation was working on installing AWAC (Airborne Early Warning and Control System) on an A330 aircraft. The system is now perfected for use on a smaller Embraer plane.

FIRSTPOST.

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DRDO develops India's first unmanned tank, Muntra; rolls it out of Chennai lab

Defence Research and Development Organisation (DRDO) has developed India's first unmanned tank, which has three variants – surveillance, mine detection and reconnaissance in areas with nuclear and bio threats. It is called Muntra (Mission UNmanned TRAcked) and has been rolled out of the Chennai lab.

According to *The Times of India*, though the tank has been developed and tested for the army by Combat Vehicles Research and Development Establishment (CVRDE) in Avadi, paramilitary has expressed interest to use them in Naxal-hit areas.

The tanks will facilitate Indian Armed forces in conducting unmanned surveillance missions. Muntra-S has been developed for unmanned surveillance missions, whereas Muntra-M is built for detecting mines. Muntra-N will be deployed in areas where nuclear radiation or bio weapon risk is high, *The Daily Bhaskar* reported.

The tanks have been tested and validated at Mahajan field firing range in Rajasthan. The Muntra tanks have surveillance radar, an integrated camera along with laser range finder, which can be used to spy on ground target about 15 kilometres away.

Two of these tanks were put on display at an exhibition organised by DRDO as a tribute to former president APJ Abdul Kalam.

Besides heavy weights, the DRDO also showcased a few inventions like a handheld wall penetration radar which if placed on a wall will project on a screen the presence of people inside a building.

DRDO chairman S Christopher was quoted by *Business Insider* as saying that the organisation was working on installing AWAC (Airborne Early Warning and Control System) on an A330 aircraft. The system is now perfected for use on a smaller Embraer plane.



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DRDO to tap overseas export market

Chennai: Having developed an array of defence systems over the past five decades, Defence Research and Development Organisation is now set to tap the overseas export market.

At a customary news briefing on the sidelines of three-day scientific exhibition “Science for Soliders and Society” organised at Combat Vehicle Research and Development Establishment, S Christopher, DRDO chairman, said marketing of Indian defence products is being keenly pursued. “We are in talks with a few friendly foreign nations. When Indian Army upgrades to the latest technology, the older systems become redundant. These systems have overseas market,” he said without naming the potential foreign customers with whom India is in touch with.

Another top DRDO official, who was present at the event, said light combat aircraft, unmanned aircraft such as Rustom-1 and Rustom-2/Tapas and the small Airborne Early Warning and Control System plane for surveillance are in the export list. Also, the missile variants like Astra and the Pinaka Mark 1 and 2 versions are probable contenders that India wish to customise and produce.

At the exhibition, DRDO has exhibited the miniature models of all the products and technological know-how. Christopher said work was underway on development of futuristic unmanned LCA, tactical sonar systems, advanced light weight torpedo, Airbus A330 class AEW&CS and hypersonic missile (BrahMos-II), currently under joint development by Russia and India. It has a range of 600 km and can be fired from ships, submarines, aircraft and land.

On development of Arjun Mk2 main battle tank, Christopher chose not to comment. DRDO scientists have been developing Arjun MK2 tank since 2012. Though it is said to be a substantially improved version of Arjun MK1, Indian army has reportedly objected to the tank carrying ‘overweight’. It currently weighs about 68 tonnes and CVRDE has taken-up the mantle to lighten the load. As the army’s contention is at 68 tonnes, Arjun Mk2 can’t be used for seamless operations.

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