मुख्यालय राष्ट्रीय सुरक्षा गारद
गृह मंत्रालय (भारत सरकार)
सम्भरण शाखा (आयुद्ध अनुभाग)
मेहरम नगर, पालम, नई दिल्ली-37

फोर व्हील्ड डे ऐंड नाइट सरवेलन्स रोबोट (FOUR WHEELED DAY & NIGHT SURVEILLANCE ROBOT) के परिशोधित गुणात्मक आवश्यकता (क्यू0आर0) और परीक्षण निर्देशों (टी0डी0) के मसौदे को गृह मंत्रालय की वेबसाइट पर डालना

1. कृपया गृह मंत्रालय, पीएम डिविजन के पत्र सं. IV-24011/12/2011-Prov.I दिनांक 05 अक्तूबर 2016, पत्र सं. IV-24011/12/2011-Prov.I दिनांक 13 जून, 2012 और पत्र सं. 11012/ 02/2009-Fin-I/Prov-I-17 दिनांक 02 जनवरी, 2018 का संदर्भ लें।

2. फोर व्हील्ड डे ऐंड नाइट सरवेलन्स रोबोट के परिशोधित गुणात्मक आवश्यकता (क्यू0आर0) और परीक्षण निर्देशों (टी0डी0) में संशोधन के लिए तकनीकी विशेषज्ञों के उप समूह की बैठक मुख्यालय राष्ट्रीय सुरक्षा गारद में दिनांक 30 अक्टूबर 2025 को 1500 बजे आयोजित हुई।

3. बैठक के दौरान उप समूह ने कहा कि विक्रेताओं की टिप्पणियों/सुझावों को आमंत्रित करने के लिए फोर व्हील्ड डे ऐंड नाइट सरवेलन्स रोबोट के परिशोधित गुणात्मक आवश्यकता (क्यू0आर0) और परीक्षण निर्देशों (टी0डी0) क़े मसौदे को 15 दिनों के लिए राष्ट्रीय सुरक्षा गारद के साथ-साथ गृह मंत्रालय की वेबसाइट पर डाला जाए।

4. पी0एम0 डिवीजन के उपर्युक्त संदर्भित पत्रों के अनुसार फोर व्हील्ड डे ऐंड नाइट सरवेलन्स रोबोट के परिशोधित गुणात्मक आवश्यकता (क्यू0आर0) और परीक्षण निर्देशों (टी0डी0) का मसौदा संलग्न परिशिष्ट के अनुसार गृह मंत्रालय की वेबसाइट पर डालने हेतु प्रिटेंड कॉपी तथा सॉफ्ट कॉपी में भेजा जा रहा है।

(राजेश रंजन)
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संलग्नक : उपर्युक्त

अनुभाग अधिकारी, (IT Cell), एनआईसी, नार्थ ब्लॉक, नई दिल्ली Email : soit@nic.in
संख्या: पी/604/24/389/ FWSR / संभरण (ऑर्डनेंस)/ मु0एनएसजी/ 1101 दिनांक : 6 नवम्बर 2025

फोर व्हील्ड डे ऐंड नाइट सरवेलन्स रोबोट के परिशोधित गुणात्मक आवश्यकता (क्यू0आर0)/ परीक्षण निर्देशों (टी0डी0) के मसौदे पर विक्रेताओं की टिप्पणियों का आमंत्रण

1. आपको सूचित किया जाता है कि फोर व्हील्ड डे ऐंड नाइट सरवेलन्स रोबोट के परिशोधित गुणात्मक आवश्यकता (क्यू0आर0) और परीक्षण निर्देशों (टीडी) के मसौदे पर फर्मों/विक्रेताओं की टिप्पणियां आमंत्रित है। सभी फर्मों से निवेदन है कि नीचे दिए गए प्रारूप में वे अपनी टिप्पणियां भरकर **OEM Certificate** सहित ई-मेल पता **scord@nsg.gov.in** या **gcproc@nsg.gov.in** पर भेजें।

गुणात्मक आवश्यकता (क्यूआर)	परीक्षण निर्देश (टीडी)	फर्म द्वारा टिप्पणियां

2. आपसे अनुरोध है कि वेबसाइट पर प्रदर्शित होने की तारीख से 15 दिनों के भीतर अपनी टिप्पणियां भेजें । उप समूह कमेटी की बैठक में उपर्युक्त उपकरण/हथियार के गुणात्मक आवश्यकताओं/परीक्षण निर्देशों को अंतिम रूप देने पर विचार किया जा रहा है।

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दिनांक : नवम्बर 2025

REVISED DRAFT QRs/TDs OF FOUR WHEELED DAY AND NIGHT SURVEILLANCE ROBOT

Ser No		Qualitative Requirements	Trial Methodology
1.	(a)	Four Wheeled Day and Night Svl Robot should be a mini robot that enables easy maneuverability through a remote control and instantaneous video and audio reconnaissance within indoor or outdoor environments.	To be physically checked by BOO
	(b)	**Wireless Link with Control Unit** The Robot should be able to receive Command and Control instructions from Control Unit and should be able to transmit audio and video svl data to control unit through a Wireless NLOS Link at a range of 80 mtr radius or better without any mesh topology in Non Line of Sight Environment and 250 mtr radius or better without any mesh topology in Line of Sight Environment.	To be physically checked by BOO
2.	(a)	Weight of four wheeled robot (Excluding spare battery(s)) - 4.5 Kg or lesser	To be physically checked by BOO
	(b)	The eqpt shall withstand a drop from a height of 2.5meters without any damage to internal components or loss of structural integrity. The functionality of the eqpt should remain intact after the drop.	The parameter to be physically checked by BOO.
	(c)	**Day and Night Camera- For video Surveillance**	
		(i) Day and night integrated cameras (with IR illumination (nonvisible)).	To be physically checked by BOO

Ser No	Qualitative Requirements			Trial Methodology
		(ii)	The equipment should have an array of surveillance cameras in order to obtain Front, rear and lateral view simultaneously. The cameras should not get detached during drop test. **Resolution** Day Camera- 1280x720p or better (Front and rear camera) For day vision minimum range should be 100m or more for detection and 30m or more for identification. Night Camera- 640x480p or better (Front and rear camera) For night vision minimum range should be 30m or more for detection and 10m or more for recognition. Lateral Cameras Detection and identification capabilities from lateral cameras should be minimum 5m during day time. Digital Zoom- 4x or better	The parameters to be physically checked by BOO. The resolution should be displayed on the screen.
		(iii)	Front and back cameras should offer vertical and horizontal field of view of ± 60 Degrees or better.	OEM to provide International/ National/ NABL accredited lab certificate. The parameter to be physically checked by BOO.
	(d)	**IR Illumination**		
		IR illumination should be provided for front and rear cameras.		To be physically checked by BOO
	(e)	**Microphone – For Audio Surveillance** Super sensitive omni-directional microphone with microphone sensitivity of 75 db or better from a distance of 2m.		OEM certificate to be provided. The parameter to be physically checked by BOO.

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Ser No	Qualitative Requirements			Trial Methodology
	(f)	**Battery**		
		(i)	**Endurance**- Minimum 2 Hours in continuous running mode with all features "on".	To be physically checked by BOO
		(ii)	(aa) Spare Batteries should be provided as per user requirements. (User to specify) (ab) Minimum 500 charge cycles	OEM to provide undertaking
	(g)	**Drive and Speed**		
		(i)	**Drive** -4 Wheel drive	To be physically checked by BOO
		(ii)	**Tracks/ flips/arrangements for negotiating stairs**- Suitable tracks/ flips/ arrangements for negotiating stairs to be provided for movement in rough terrain (**Optional**- As per user requirement)	To be physically checked by BOO
		(iii)	**Speed** - Variable Speed during operation with Speed minimum 3.5 Km/Hr or more	To be physically checked by BOO
		(iv)	**Maneuverability**- (i) The Robot should be maneuverable in a variety of rough terrain. Should be able to climb steps at least 200mm high. It should be able to climb two or more steps in continuation provided the width of each step is at least 400mm. (ii) The Robot should be able to swivel or rotate on its axis at the same place (iii) Robot should be able to self-right when overturned or alternatively the four wheeled robot should be able to carry out all its functions even when overturned	To be physically checked by BOO

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Ser No	Qualitative Requirements		Trial Methodology
3.	**Control Unit**- Should receive and display audio and video reconnaissance data picked up by Robot and should also be able to control all features of robot.		To be physically checked by BOO
	(a)	**Weight** - Less than 1.5 Kg	To be physically checked by BOO
	(b)	**Screen** - Control Unit to have suitable 5 inches screen or more depending upon user requirement (User to specify at the time of tendering)	To be physically checked by BOO
	(c)	**Display** - The display should offer visuals from all the cameras simultaneously	To be physically checked by BOO
	(d)	**Battery-** Suitable rechargeable battery to offer 180 minutes of endurance or better	To be physically checked by BOO
	(e)	Suitable inbuilt or miniaturized external Video Recorder with Minimum 500GB storage capacity and Compatible with Windows OS 10 for data extraction	To be physically checked by BOO
4.	**Battery Charger** - Suitable 110/220 V AC battery Chargers to charge the Robot and Control Unit batteries. Separate chargers required for Control Unit and Robot.		To be physically checked by BOO
5.	**Portability and Storage**-The equipment to be provided in suitable pelican box for ease of carriage. In addition, vendor to provide suitable deployment sling and bag to carry robot and control unit during operations.		To be physically checked by BOO
6.	**Maintenance Kit** - Suitable maintenance kit with recommended accessories to be provided to reduce Mean Time to Repair (MTTR).		To be physically checked by BOO
7.	**Literature** - Operating and Technical literature for each discrete components of system should be in English language		To be physically checked by BOO

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Ser No	Qualitative Requirements	Trial Methodology
8.	**Training** Demonstration of one set of complete system with its full accessories should be arranged at buyers premises on NO cost NO commitment basis. In situ training of users for three day on operation, maintenance, fault finding and user level repairs.	Undertaking from the OEM for the training. Authenticity and Correctness of the undertaking to be submitted by BOO.
9.	**Ruggedisation** All the equipment should comply with Mil Std 810G or better and IP 65 or better	OEM to provide International/ National/NABL accredited lab certificate.

Anil Rajput, Dy Comdt, BSF

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