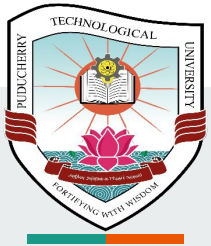


PUDUCHERRY TECHNOLOGICAL UNIVERSITY
DEPARTMENT OF ECE

DESIGN AND IMPLEMENTATION OF SURVEILLANCE MINIBOT

GUIDED BY:

DR.JAYANTHI K (PROFESSOR)

TEAM MEMBERS:

BADRINATH M

YOGANATH P

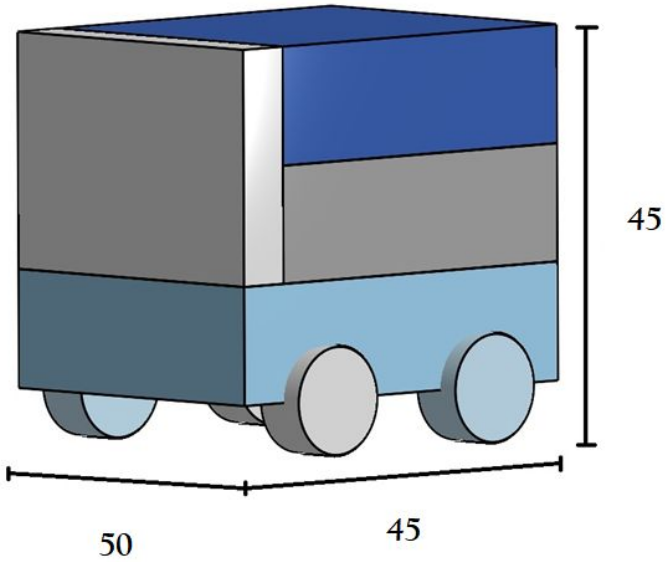
Exploring the Depths: Comparative Analysis of Commercial SROVs

	Daksh	**Dragon Runner 10**	**iRobot 110 FirstLook**
Developed by:	Defense Research and Development Organization (DRDO) in India.	QinetiQ North America, a defense technology company based in the United States.	iRobot, a robotics company based in the United States.
Features:	• Designed for bomb disposal and hazardous material handling. • Modular design with various attachments. • Remote operation with cameras and sensors. • Robust chassis for durability.	• Lightweight robot for reconnaissance and surveillance. • Advanced mobility for urban environments. • Day/night cameras and manipulator arm. • Single-operator use.	• Small, throwable robot for reconnaissance and inspection. • Lightweight and durable. • Equipped with cameras for real-time video. • Four-wheeled mobility, can climb stairs and obstacles.

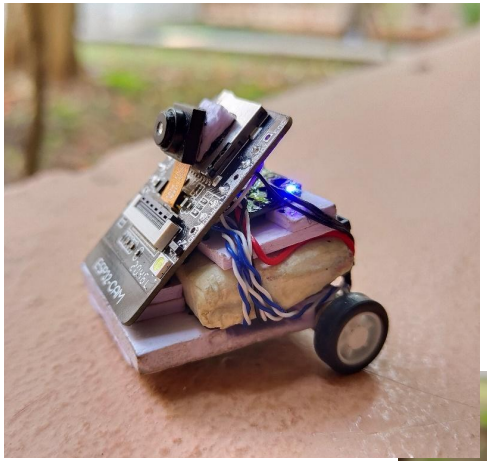
Exploring the Depths: Comparative Analysis of Commercial SROVs

	Daksh	Dragon Runner 10	iRobot 110 FirstLook
Image:			
Size:	1.2 x 0.7 x 0.6 meters	57 x 38 x 26 cm	23 x 14 x 10 cm

MiniBot: Revolutionizing Surveillance with Compact SROV Technology

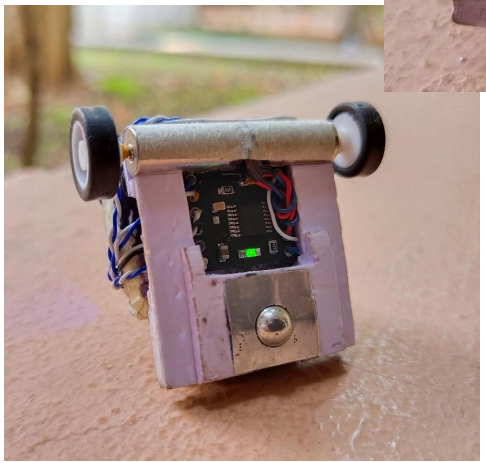


3D Layout (mm)



MiniBot's Cutting-Edge Features:

- Impressive coverage distance of 20 ft with clear vision
- Wide camera coverage angle of 125 degrees
- Camera coverage expands proportionally to the distance
- Increased distance leads to wider coverage angle
- Long-lasting battery efficiency of 70 minutes
- Remote coverage distance of 153 ft
- Camera delay only beyond 153 ft
- Affordable cost of ₹4000



Empowering Minibots: Advancing Surveillance Capabilities

1. **Extended Remote Coverage:**
   - Incorporate RF or 4G cellular communication for long-range control and data transmission.
   - Enables remote operation and real-time data transmission for flexible surveillance tasks.
2. **Additional Sensors:**
   - Infrared sensors for night vision.
   - Temperature sensors for heat signature detection.
   - Audio sensors for sound capture.
   - Enhance surveillance capabilities in different scenarios.
3. **Autonomous Features with GPS:**
   - Obstacle detection and avoidance.
   - Intelligent path planning.
   - Behavior recognition.
   - GPS navigation for precise location determination.
   - Enables autonomous surveillance missions with improved efficiency and accuracy.