



CSIR-CBRI

12TH FIVE YEAR PLAN MEGA PROJECT

TITLE: Robotics and Micro machines

Activity Title: Design and Development of Service Robot for Inspection and Maintenance of Buildings and other Structures

ACRONYM: Robo - IBM

CATEGORY: A+

NEED:

Service robots for inspections at higher locations in buildings are not available in India. They are needed for the following purposes:

- To design and develop a service robot for performing inspection of civil structures
- Useful for monitoring the condition of the structures after occurrences of natural hazardous
- To reducing maintenance cost and increasing service life of the structures.

DELIVERABLES:

- **Design layout**
 - Design of proper Mechanisms, Actuators and Manipulator
 - Robotic system modeling and simulation
- **Control system and Prototype robots**
- **Demonstration of Inspection work testing**
 - To perform Visual inspection for surveillance
 - Non-Destructive evaluation of walls by using inspection sensors

NODAL LABORATORY : CSIR-CMERI, Durgapur

PARTICIPATING LABORATORIES: CSIR-CBRI and others

PARTICIPATING SCIENTISTS: 3 (from CSIR-CBRI)