



## **Eyantra Lab**

We have taken an initiative to setup e-Yantra Robotics Lab under e-Yantra Lab Set-up Initiative (eLSI) by IIT Bombay.

E-Yantra Project is an initiative by IIT Bombay that aims to create the next generation of embedded systems engineers with a practical outlook to help provide practical solutions to some of the real world problems. The Ministry of Human Resource Development (MHRD) sponsors E-Yantra under the National Mission for ICT in Education (NMEICT) program. IIT Bombay envisages the 'Eyantra' platform to harness the intellectual talent of young India to create utility based robotic applications for usage across variety of applications such as: agriculture, manufacturing, defence, home, city maintenance and services industries. The overall mission is to grow a rich eco-system of ideas and applications that can propel India's growth curve and productivity through intelligent funneling of robotics in daily living built upon an existing pool of knowledge developed by students working on such projects at engineering colleges in the area of embedded systems.

### **Benefits of E-Yantra lab to students:**

- Awareness of embedded systems, robotics technology.
- It provides platform to design, develop, program and test of robots to various applications.
- Students can participate in national and international robotics competitions
- Students are able to participate in e-Yantra Competitions:
  - **E-Yantra Robotics Competition (eYRC):** Engages students using Project Based Learning (PBL) to implement a solution to a real world problem. Robots, accessories, training material, and rulebook are given to the teams selected for participation, free of cost. Winners get exciting prizes and an opportunity to get internship at e-Yantra, IIT Bombay

- **E-Yantra Ideas Competition (eYIC):** eYIC is the basis for e-Yantra to build a start-up ecosystem around a college e-Yantra lab. We solicit ideas from student-teacher teams from eLSI colleges as the basis for innovative projects and for sustained use of Robotics labs set up through eLSI.

**Lab Hardware:**

Sr No	Equipments
1	FireBird V 2560
2	Spark V Robot
3	Fire Bird V P89V51RD2 adapter card
4	Fire Bird V LPC2148 adapter card
5	Zigbee Modules 100m range
6	Zigbee Modules Adapter
7	Raspberry Pi-3
8	Metal gear Servo motors
9	Servo motors based gripper kit for fire bird V robot
10	P9V51RD2 Development Board

**Lab Inauguration:**



