MAJOR ROBOTICS LAB EQUIPMENT

Robot version	Reach (mm)	Payload (kg)	Armload(kg)
IRB 1200-5/0.9	901	5	0.3
Protection	IP40/IP67/Foundry Plus 2/Clean Room		
Mounting	Any angle		
Controllers	IRC5 compact/IRC5 single cabinet		
Integrated signal and power supply	10 Signals on wrist		
Integrated air supply	4 air on wrist (5 Bar)		
Integrated ethernet	One 100/10 Base-TX Ethernet port		

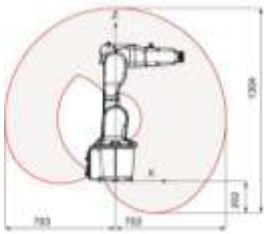


ABB IRB 1200 - SIX AXIS ARTICULATED ROBOT MANIPULATOR

- ABB IRB 1200 with teach pendant control
- Robot studio software for control over various nodes
- Pneumatic actuator gripper with compressor

MAJOR ROBOTICS LAB EQUIPMENT

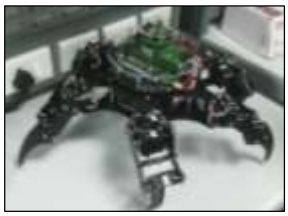
- **Firebird V Platform is reliable, versatile and rugged robot for advance research in mobile robotics.**
- **Equipped with onboard computer for Vision Processing, Laser Range Finder, Vision based Stereo Range Finders, Integrated Inertial correction to compensate for slippage, Digital Compass, GPS/DGPS receiver, support for Manipulators and Grippers.**

FIRE BIRD VI – MOBILE ROBOT PLATFORM

Research Areas:

- **Mapping and autonomous navigation**
- **Vehicle navigation and control**
- **Machine learning and computer vision**
- **Mobile sensor network**
- **Multi agent systems**
- **Warehouse automation**
- **Reconnaissance**
- **Artificial intelligence and machine learning**
- **Vision (2D and 3D)**
- **Object manipulation**
- **Tele-presence**
- **Collaborative robotics, swarm robotics.**

MAJOR ROBOTICS LAB EQUIPMENT



Firebird V Hexapod

Fire Bird V Hexapod is based on Fire Bird V ATMEGA2560 platform. It has six legs, each leg has 3 degree of freedom (3 DOF). Robot has 18 NRS-995 dual bearing high torque metal gear servo motors. Robot is powered by 7.4V, 1800mAh, 20C Lithium Polymer battery. Robot can be controlled by modified Sony PS2 wireless remote control.

Dexter ER-2 Robotics Arm

Dexter ER-2 Heavy Duty Robotic Arm with Controller and Accessories is fully assembled and ready to use Robotic Arm. Robotic arm comes preassembled along with the Servo control card, Servo motion profile generator GUI, and Flex sheets with polar and rectangular coordinate systems for the robotic arm.

MAJOR ROBOTICS LAB EQUIPMENT

Fire Bird V ATMEGA2560 Robotic Research Platform

It is powered by high performance rechargeable NiMH batteries. A 2.4 GHz ZigBee module provides state of the art secure and multi-channel wireless communication up to a range of one kilometre. Its modular architecture allows you to control it using multiple processors such as 8051, AVR, PIC and ARM7 etc. Modular sensor pods can be mounted on the platform as dictated by intended applications.

Fire Bird V P89V51RD2

Its modular architecture allows you to control it using multiple processors such as 8051, AVR, PIC and ARM7 etc. Modular sensor pods can be mounted on the platform as dictated by intended applications. on, algorithm development and testing. It is powered by high performance rechargeable NiMH batteries. A 2.4 GHz ZigBee module provides state of the art secure and multi-channel wireless communication up to a range of one kilometre.