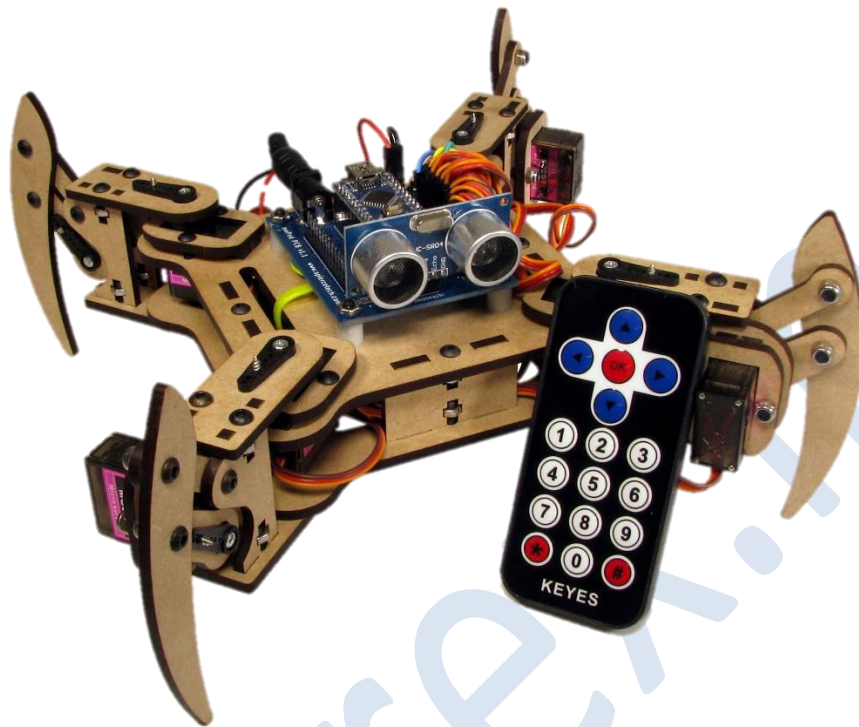


A 2-Days Training On Android Controlled Walking Robot (Quadruped)



**Images are for reference purpose only

Why Walking Robot Designing:

- Walking robot can move over terrains (Uneven Surfaces)
- Military robot for transportation of arms and ammunition
- As a Locomotive in terrain region where wheel vehicles can't be used
- Remotely controlled mini walking robot can be used for spying
- Make idea into reality

Workshop Highlights:

- Learn Robotics to control motion
- Programming of motion into a robot
- Understanding various 4leg creatures walking pattern
- Implementation of leg motion based on angles to servo motors
- Motion Planning for different motion like, forward, backward, left, right, rotate, bend down, stand up, etc
- Embedding Intelligence in robot interfacing sensors with the robot
- Building the intelligence in robot to avoid obstacles

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Why to attend our Courses?

- The idea is that sometimes you have to take a break from the “work” of your work to sharpen your skills. A dull axe won’t cut a tree nearly as effectively as a sharp one.
- Learn new information from the expert.
- Allow time for creativity by getting away from your daily routine and working “on” your domain instead of “in” your domain.
- Brainstorm your ideas and get immediate feedback.
- Hear the information you might know already but from a different angle from a different speaker so that you have an even better understanding of the topic
- Discover there’s more to know even if you think you knew it all.
- Learn something that changes your life (in a good way!)
- & because it’s fun...

What student will learn after attaining the Course?

- Get new product or service ideas by hearing about needs in your industry.
- Receive large volumes of usable content within a compressed amount of time.
- Intensive exposure to a topic through presentations and discussions led by experts.
- Confidence and motivation for rising and participating in different events that improves the personality of a student.
- Develop a connection that might help you with future employment.

Workshop Session Details: This is a Two Day Workshop, including a total 4 sessions

Day 1: **Session 1**

- Introduction to robotics & application of robot in industry & day to day life
- Explanation of different types of robots & their significance
- Explanation of motion mechanism of walking robot
- Motors used in walking robot and their controlling
- Introduction to microcontroller & arduino hardware
- Starting with basic arduino programming
- Interfacing ultrasonic sensor and writing program for range finder (distance measurement between objects)

Session 2

- Introduction to mechanical frames and parts of the walking robot
- Assembling of robot leg parts with servo motors
- Interfacing & programming of servo motors & testing for different angles
- Studying of four leg creature walking motion

Day 2: Session 3

- Programming of all servo motors to reflect different motion like, forward, backward, left, right, rotate, bend down, stand up, etc. and function for all
- Introduction to serial communication
- Transmission of data using serial communication
- Introduction to wireless communication & Bluetooth

Session 4

- Transmission of serial data via Bluetooth
- Interfacing of Bluetooth with android app
- Introduction to app inventor and making basic app
- Controlling Robot using android application

Kit Content:

- ✓ Arduino Nano
- ✓ USB Data Cable
- ✓ Arduino Breakout Board
- ✓ Bluetooth Module
- ✓ Servo Motors
- ✓ Gear Shaft
- ✓ Ultrasonic Sensor
- ✓ Robot Mechanical Frames
- ✓ Screw Packet
- ✓ Power distribution board
- ✓ Battery
- ✓ Battery Snapper
- ✓ Screwdriver
- ✓ Connecting Wires

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---Thank You for Your Interest---