



Z2M Robotics

Zero2Maker Scableable Makerspace Concept by Rajesh Nair

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Overview

Robotics is always a crazy learning experience for kids and their love to explore more with its design connection and movements.

Zero2Maker Robotics program by EnCube Labs is all complete solution to make kids active in basic science and engagement as team development and strategy making.

This activity is only the one activity which goes with a very low-cost model and durable with a robot which can be utilised for a long time for teaching basic electrical concepts which are covered in the academic and as well in daily life.

Confidence and interest for jumping more deep into the world of Science and Technology become a habit which later on develops a behavioural change of liking to explore rather than hiding their fear of science.

Zero2Maker Robotics program designed by Rajesh Nair is scalable as it goes further a different program which is available to start after robotics and it also includes Intelligence with data make a basic understanding for students about IOT internet of things and control.

zero to make a Robotics kit come with basic robots and a kit to assemble it.

Photos of Workshops

<https://photos.app.goo.gl/ovhbfZkpgr7ZNNM77>

Goals

1. To provide context based learning to students
2. Develop self learning approach.
3. Connecting Learning (Theory) + Doing (Practical) by challenge based approach for self discovery of Science Concept.

Specifications

- It works on 12 volt DC supply and can be use for outdoors as well as indoor.
- Kit is easy to pack and assemble.
- This kit is capable enough for 20 students.

Safety

While using from extension board precaution is required that kids don't put finger or conductive thing.

Learning Milestones

I. Safety while working

Understanding basic safety rules and discussing its importance.

II. Basic Connection

Learning Simple Circuits, Insulator, Conductor and Power

III. Flow of Electricity

Understand Voltage, Amp and series- parallel connection.

IV. Working with Motor

Logic of current generation and rotation of motor axis

V. Switching with Polarity

Clockwise and Anticlockwise rotation with change in current flow.

VI. Navigation

Using basic logic of current flow and DPDT switch control its navigation.

VII. Challenges

Different challenge to understand Art of Robotics.

Workshops

1. Introduction & Self Exploring. | Day 01
2. Basic Connection of Motors | Day 15
3. Navigation | Day 25
4. First Challenge (Race) | Day 35
5. Second Challenge (Soccer) | Day 45
6. Third Challenge (Pick and Place) | Day 60

All above Workshop Will Come with Activity Cards and it will also have Guide line for Teachers for Conducting Workshop.





Deliverable by Encube Labs

1. Workshop kit for 20 kids containing 5 Robots and support kit.
2. 5 Workshops at school in Ahmedabad (5 hour each)
3. One training for School Teacher for utilising kit for Academics (5 hour)
4. Mentor Support on Call for 6 Month.

Photos and Videos past workshops



Link:-https://www.youtube.com/watch?v=1iq9iY_PFG8




News Article in Ahmedabad Mirror

Ignited minds

By Brendan Dabhi, Ahmedabad Mirror | Updated: Dec 24, 2017, 02:00 IST



Sixteen-year-olds making profound statements is rare, rarer still is they talking about responsibilities, but rarest is the spirit of taking others along as they grow, that too when they themselves have limited resources. Meet the bunch of teenagers who consider themselves privileged, so privileged that they feel it's their responsibility to share that they have and others don't. For almost a month now, six students— Pallavi Solanki, Ankush Soni, Aadit Patel, Siddharth Jadeja and Mitesh Suthar of class XI (Science) and Jatin Dabhi of class IX—have been mentoring students of other schools, living near their homes, showing them how to assemble a robotic car or putting together an electric circuit to make an LED bulb work.



<https://ahmedabadmirror.indiatimes.com/ahmedabad/cover-story/ignited-minds/articleshow/62226112.cms>