

# Beginner course in Arduino Robotics and IoT

## FREQUENTLY ASKED QUESTIONS

### 1. What can I learn from this course?

By following this "Beginner course in Arduino Robotics and IoT", you will get an introductory knowledge in robotics and IoT where you will be able to develop practical solutions using the technology.

The course content is as follows.

#### Day 1: Introduction to Smart Technologies

- Main components of Robotics and IoT
- Real world innovations
- Future of innovations with robotics and IoT
- Barriers of Robotics and IoT

#### Day 2: Basic Electronics & Programming

- Analog Signal & Digital Signal
- Basic Electronic Components
- Electronic Sensors & Actuators
- Programming Concepts

#### Day 3: Microcontroller Programming

- Digital Output
- Digital Input
- Analog Input
- Pulse width modulation

#### Day 4: Communication Protocols

- Serial Communication
- Use of libraries
- Protocols

#### Day 5: Sensors & Actuators

- Use of different type of sensors
- Motor controlling
- Display

#### Day 6: Introduction to Robotics

- Types of Robots
- Sense Think Act Model
- Sensors and actuators used in robotics
- Designing of differential drive robot

#### Day 7: Introduction to Internet of Things

- Use cases
- Main components
- Magicblocks.io as IoT platform
- IoT solution design

#### Day 8: Solution Design

- How to design a solution?
- Practical issues in solution design
- Self-learning guidance
- Q & A Session

Please note that every session will include practical self-learning activities with the Magicbit kit.

## **2. What is the duration of the course?**

The course will comprise of eight sessions where the duration of each session will be two hours, resulting in 16 hours in total.

## **3. How I can know whether I have been selected for the course?**

If selected, the applicant will be notified via the registered email.

## **4. What is language that the course will be conducted?**

The course will be conducted to English, Sinhala and Tamil. If you are selected to follow the course, you will be allocated to a class based on your language preference.

## **5. When I will receive the MagicBit kit?**

If you have been selected to follow the course, you will be contacted by the conductors and the MagicBit kit will be delivered to your registered postal address before the commencement of the first session.

## **6. What I need to have to follow the course?**

If you have been selected to follow the course, you need to be equipped with a stable

Internet connection and a laptop or a computer to follow the course.

### **7. When will the course start?**

The start date of the course will be decided by Mobitel.

### **8. On what days will the sessions be scheduled?**

The schedule of sessions will be decided by Mobitel on due course. However, it will be either on weekends or weekday evening.

### **9. Your questions were still not answered?**

Send us your queries via email to [mic@mobitel.lk](mailto:mic@mobitel.lk)

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