

## Day 1- OSH & Arduino

Time	Duration	Session	Details	Expected Take Away
09 : 00 AM	90 Minutes	FOSS & IoT	<ul style="list-style-type: none"> <li>• Introduction to FOSS.</li> <li>• Introduction to IoT</li> <li>• Why FOSS &amp; IoT</li> <li>• IoT Devices , possible applications.</li> </ul>	Understanding of FOSS and world of IoT
10 : 30 AM	15 Minutes	Tea Break		
10 : 45 AM	120 Minutes	Open Source Hardware	<ul style="list-style-type: none"> <li>• Introduction to OSH and its communities.</li> <li>• Choosing the right platform.</li> <li>• Building your first Open Hardware based solution</li> <li>• OSH &amp; IoT</li> </ul>	A general understanding of OSH and ways it get used in developing IoT products.
12 : 45 PM	45 Minutes	Lunch Break		
01 : 30 PM	90 Minutes	Arduino Workshop Session 1	<ul style="list-style-type: none"> <li>• Arduino IDE and Hardware</li> <li>• Blinking and LED.</li> <li>• Controller Basics.</li> </ul>	A hands on approach to learn the basics of Arduino.
03: 00 PM	15 Minutes	Tea Break		
03 : 15 PM	120 Minutes	Arduino Workshop Session 2	<p>Component interfacing</p> <ul style="list-style-type: none"> <li>• Digital Communication with Ultrasound Sensor.</li> <li>• Analog Communication and ADC with LM34 Temp Sensor.</li> </ul>	Learn how to interface digital, analog and serial devices/sensors.
05 : 15 PM	15 Minutes	RPi Intro		An into to Day 2

## Day 2- RPi & IoT

Time	Duration	Session	• Details	Expected Take away
09 : 00 AM	120 Minutes	RPi Workshop - Session 1	<ul style="list-style-type: none"> <li>• Python - Hello World</li> <li>• Rpi GPIO Library - Blink LED.</li> </ul>	Learn the basics of Python coding and accessing features of Rpi
11 : 00 AM	15 Minutes	Tea Break		
11 : 15 AM	105 Minutes	Rpi Workshop - Session 2	<ul style="list-style-type: none"> <li>• Setting up LAMP in RPi</li> </ul>	Learn the computing power of RPi
01 : 00 PM	45 Minutes	Lunch Break		
01 : 45 PM	90 Minutes	IoT – Workshop – Session 1	<ul style="list-style-type: none"> <li>• Setting up ThingSpeak Platform.</li> <li>• Data handling</li> </ul>	Learn to populate data into cloud /internet.
03: 15 PM	15 Minutes	Tea Break		
03 : 30 PM	120 Minutes	IoT Workshop - Session 2.	<ul style="list-style-type: none"> <li>• Setting up an IoT based product using OSH</li> <li>• IoT testing</li> </ul>	Learn a typical IoT product implementation