

# IoT Virtual Bootcamp

<http://aka.ms/IoTVirtualBootcamp>

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## Q: Who will benefit most from this?

This virtual bootcamp is designed for individuals who are looking to create IoT solutions that can scale from the ideation/prototyping stage to full blown enterprise-grade deployments. The audience will begin the session by learning the basics of IoT and the overall landscape of things in commercial environments. By the third day, they will understand cognitive services, BOT framework, and how to utilize them in commercial use cases.

The target audience consists of:

- **Organization Types:** Any organization/company that is ideating, architecting, or creating an IoT solution that spans from devices to cloud. This could include **device builders (e.g. discrete or process manufacturers, OEMs, ODMs), software solution providers (e.g. SIs, ISVs, cloud)**, as well as **more niche players like professional services organizations and data scientists who are all key to an IoT ecosystem.**
- **Roles:** Since these three days are dedicated to technical conversation and how Microsoft platforms are making IoT scenarios come to life through a hands-on-approach, we recommend anyone who has some basic idea of a device and/or cloud to join. These roles include **CIOs, technical decision makers, architects, technical managers, developers, programmers, entrepreneurs, and strategists** who are not afraid of rolling up their sleeves and diving into the IoT waters.

## Q: What do you get from attending these tracks?

1. Gain **expert views and training** from tech insiders—your presenters are the best of the best in IoT today!
2. Hands-on labs include **step-by-step guidance** in real-time, allowing you to create IoT solutions from scratch. Leave with a working solution that meets the basic tenets of device, security, connectivity, cloud, analytics, and insights core to any IoT project.
3. The confidence to **create an end-to-end solution yourself**. Come prepared with basic hardware and software to create larger IoT projects.
4. You will also earn a **special certificate** of accomplishment from Microsoft's bootcamp partner Hackster.io, assuming you complete all the quizzes which will be span across the three days of the bootcamp.
5. Become part of a **community of Microsoft IoT Partners** that are defining IoT solutions across the globe.

Monday, October 9, 2017

Q: I am a software engineer and don't have much experience with devices, will I benefit from this bootcamp?

Each day builds upon the other—you will go from learning how to build a basic device to creating a commercial solution. For this bootcamp, we recommend you possess some general device-related skills, knowledge of MCUs and MPUs, as well as a general understanding of an OS.

For more information on the device side of Windows IoT, please visit: <https://developer.microsoft.com/en-us/windows/iot>.

For more information on the OS that we'll be running in the lab, check out Visual Studio: <https://www.visualstudio.com/vs/>.

Q: I am a hardware engineer and don't have much experience with software, will I benefit from this bootcamp?

In this bootcamp, we will cover a broad range of topics from building a basic device to advanced topics including cognitive services and making smart things intelligent. Over the course of the three days, we will show you how to turn your IoT ideas into actual commercial solutions.

We will also cover the fundamentals of the cloud along with an introduction to big data. Plus, we will spend a good deal of time comparing and contrasting scenarios that require things with no OS vs. RTOS vs. enterprise-grade OS.

If you are comfortable with basic software and coding skills, this three-day bootcamp is perfect for you!

Q: Is this bootcamp open for attendees for all geographies?

Since it's virtual, the bootcamp can be accessed from anywhere in the world. Though keep in mind that:

- The time has been chosen to accommodate everyone joining from the U.S west coast all the way to western Europe (starting at 7am PST on all three days).
- Also, the hardware required is most prevalent in the Americas and EMEA, and takes limited shipping effort/time to these regions.

Monday, October 9, 2017

Q: What is the depth of technology that will be covered in this bootcamp?

The first day of the bootcamp will go from Level 100 to 200 and will showcase IoT scenarios using basic devices and their connections to the cloud. Day 2 and 3 will go more in-depth and may touch Level 300-400 concepts, which will require a better understanding of the cloud, big data, and edge fundamentals.

Having said that, we expect a broad set of partners and customers attending from device and/or software backgrounds, so we will try to keep the education as generic as possible to allow people to understand the basic concepts of IoT throughout all three days.

Q: What is the cost and what is included?

The training and insights are delivered free of cost at the location of your choosing. For successful execution of this virtual bootcamp, we need to standardize the hardware. You can purchase the required hardware by following the link on the registration page: <http://aka.ms/loTVirtual-Bootcamp>

The BoM could range from \$0 to \$400 USD depending on which items you currently own.

Q: Where do I reach out if I have more questions?

You can send an email to [iplive@microsoft.com](mailto:iplive@microsoft.com). Please give us about 72 hours to respond. Be as detailed as possible with your questions so there is limited back-and-forth to get to your answer.

Q: An email and website from a newsletter both say that this is a three-day boot camp, but only states November 14-15. What are the actual days?

The IoT Virtual Bootcamp is a three-day event that runs from November 14-16, 2017.

Q: What is an HOL? And what is an HOL Quiz?

HOL stands for "hands-on lab." Throughout the three-day event, there will be hands-on labs that reinforce the content in each lecture. Upon completion, there will also be quizzes to test attendees' understanding.

Q: The information about each day's content refers to "levels." For example, the first day's description says, "The day starts at level 50 and goes to Level 200." What does this mean?

We will be starting the bootcamp with introductory topics, such as defining what a "thing" is and what are the key types that make up the "T" of IoT; from there, we will dive into more intermediate content like cold processing. For example, some content includes all databases, persistence and cold-path analysis in Azure Cloud.

To learn more about the topics we will be covering, check out the complete agenda here: [https://academylive.blob.core.windows.net/media/LIVESHOW/IoTVirtualBootcamp/Virtual-BootcampNov2017\\_Agenda.pdf](https://academylive.blob.core.windows.net/media/LIVESHOW/IoTVirtualBootcamp/Virtual-BootcampNov2017_Agenda.pdf)

Q: Is it possible to use a Raspberry Pi 2, instead of Pi 3 in the labs?

Typically, the labs should be able to run on a Raspberry Pi 2. The layout is identical, if you are using a Model B. However, Raspberry Pi 2 does not come with integrated Wi-Fi/Bluetooth. Overall, the performance of Raspberry Pi 3 is better.

A nice comparison of the two boards can be found here: <https://www.raspberrypistarterkits.com/comparison/raspberry-pi-3-pi-2-pi-b-benchmark-review/>.

Q: I am just curious to know, what OS and programming language you are going to use for the exercises?

We will be using Visual Studio 2017, in addition to Visual Studio Code and other third-party tools. To familiarize yourself with Visual Studio: <https://www.visualstudio.com/vs/>.

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To get the most out of the labs, focus on the Universal Windows Platform (UWP) development. More information on the device side, where we run UWPs on Windows 10 IoT Core, can be found here: <https://developer.microsoft.com/en-us/windows/iot>.

For a list of all the prerequisite tools, please go to: [https://academylive.blob.core.windows.net/media/LIVESHOW/IoTVirtualBootcamp/VirtualBootcampNov2017\\_Prerequisites.pdf](https://academylive.blob.core.windows.net/media/LIVESHOW/IoTVirtualBootcamp/VirtualBootcampNov2017_Prerequisites.pdf)

However, attendees should be able to follow along with our labs without too much preparation.

Q: I registered for the event and I was going through the action items and shopping list described in the pre-requisites guidance, but when I went to buy the products, they are listed as out of stock. Is there somewhere else I can buy the kit?

Our supplier, Adafruit, is going to be continually replenishing their stock of the kits until the event. You can subscribe to be notified as soon as more kits are available: <https://www.adafruit.com/product/3605>

Although we don't have an agreement with other suppliers, you should be able to locate the items from other retailers as well.

Q: Is this a onetime bootcamp or are there plans to do more of these bootcamps in the future?

We are planning to host more virtual events in the future. We find this to be a great way for the worldwide IoT community to engage with Microsoft and our partners.

Although we have not announced any future events yet, stay tuned!

Q: Since this event is occurring in my workday, or late evening, can I watch the series on demand?

Yes. If you're unable to join us November 14-16, 2017, we will be posting a video of each day once the event comes to an end. Do keep in mind that you will not get the full experience and benefits as the live broadcast, where you can engage with the presenters in real-time, ask questions, and interact with your peers.

Q: I will not be available for all three days. Can I just join for one of the three days?

Yes. While you can join for just one day of the event, this is not recommended. You will receive a much better understanding of all the topics by attending the entire event, as each day builds upon the previous one.

Q: Will Microsoft be providing a Microsoft Azure account to be used for the labs?

No. You will have to use the trial version of Microsoft Azure by registering here:

1. Open a browser and go to: [azure.microsoft.com](https://azure.microsoft.com).
2. Click FREE ACCOUNT
  - a. Get a free credit, try many of the services, and pay nothing at the end.
3. Click START FREE
  - a. Log in using your just created MSA, or use an existing one.
  - b. You will be required to use a credit card to validate identity.
4. After completing, log in to the new Azure account.

In the case of a new account, Microsoft provides the first 30 days free along with a \$250 credit. If you already have an account and the free trial period has ended, you will need to set up a paid subscription.

Depending on the use case, the three-day hands-on labs may require \$50 to \$100 of credit.