

Intro to Robotics: Becoming RoboMaster Apprentices

Description

Do you want to work with robots but don't know where to start? In this workshop, we will talk about what a robot is, physically explore some of the elements of a robot, and then take some first steps in writing algorithms to control robots in the real world.

If you'd like to learn the basics of how to control a modern robot via Python from a remote device, or how to integrate your own hardware into a pre-existing robot chassis, this workshop is a great place to start.

Learning Outcomes

After this workshop, you will be able to:

- Explain (at a high level) what a robot is in general
- Discuss the specific elements of the RoboMaster EP "Engineering" configuration
- Program and control any RoboMaster EP robot using the SDK

Prerequisite Knowledge

To get the most out of this workshop, you should have a basic understanding of Python (Python 3 if possible) and a desire to use the RoboMaster robots during Hack the North.

Pre-Workshop Checklist

Before the workshop, please make sure you complete the following items:

- Install Python 3.x and the RoboMaster SDK on your WiFi-enabled device based on the instructions at <https://robomaster-dev.readthedocs.io/en/latest/index.html>.
- Optional: Visit <https://www.dji.com/ca/robomaster-ep> to get familiar with the DJI RoboMaster EP "Engineering" configuration hardware we will be using.
- Optional: Read through the documentation for the RoboMaster SDK that we will be using, also at <https://robomaster-dev.readthedocs.io/en/latest/index.html>.



Timeline (1 hour)

Time	Module	Description
10-15 mins	What is a robot?	Introduction to robots in general
10-15 mins	What is this robot?	Introduction to RoboMaster EP “Engineering” robot
30-40 mins	GO ROBOT GO!	Controlling RoboMaster EP robot via SDK/Python

Workshop Lead Contact

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Additional Resources

Hack the North Resources

[Hack the North 2023 Event Schedule](#)

Check this out to stay up-to-date on activities, workshops, and other key happenings this weekend.

Workshop-Specific Resources

[RoboMaster Downloads Page](#)

Visit this website to download the software and PDF documentation for the RoboMaster EP platform.

[RoboMaster Developer Guide](#)

Visit this website to learn how to get Python and the RoboMaster SDK installed on your device of choice.

