

LAB#1

LAB EXERCISE TO INTRODUCE COZMO

I. OBJECTIVE

Introduction to Cozmo Robot, installation of Cozmo SDK, Python and have the mobile setup ready. Have knowledge of the troubleshooting section and Cozmo SDK Forum.

II. DUE DATE : During the class

III. EQUIPMENT :

1. A Cozmo Robot along with his charger
2. An phone or tablet to run free Cozmo app along with the connecting wire
3. Laptop or desktop to code.
4. Robot's cubes

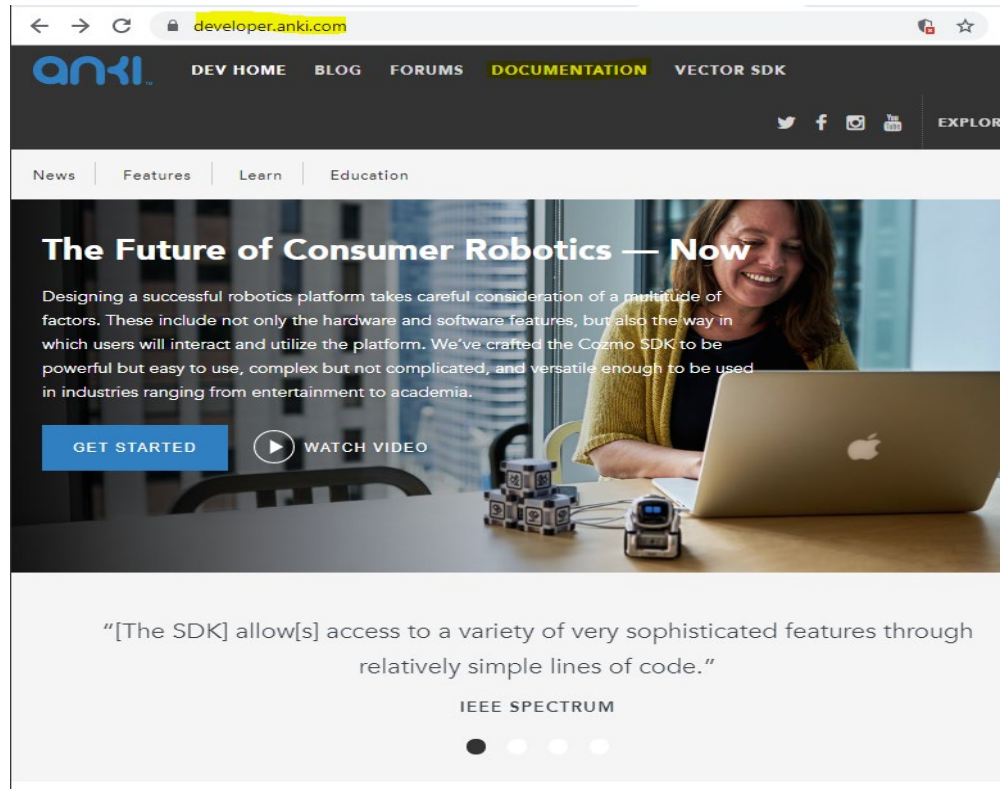
IV. EXERCISES

EXERCISE#1: INTRODUCTION TO COZMO

1. Get Cozmo, his charger, phone and his set of cubes
2. If you plug the charger into a power strip, the robot should turn on after being placed on its charger.
3. Raise and lower the lift to know the robot's network name and WiFi password.
4. Enable the WiFi settings on your phone and chose the WiFi network name that matches your robot.
5. After the WiFi is connected, start the Cozmo app on your phone.
6. Explore the app functionalities and have a good time with Cozmo. Let him run around, pick and place his cubes, make a cube stack.
7. Use the app to play games, do tricks and explore the functionalities.

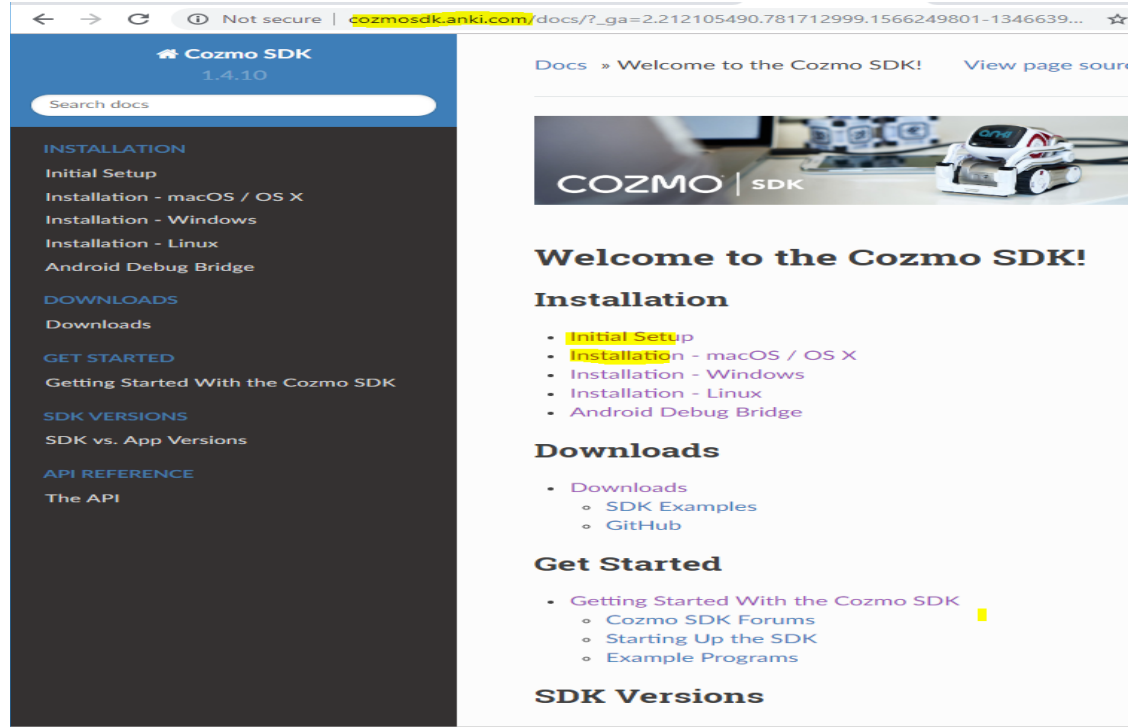
EXERCISE#2: Installation of Cozmo SDK

1. Browse to developer.anki.com
2. Navigate to the documentation section from the tab at the top of the page



The screenshot shows the 'developer.anki.com' website. The navigation bar includes 'DEV HOME', 'BLOG', 'FORUMS', 'DOCUMENTATION', and 'VECTOR SDK'. Below the navigation bar, there are links for 'News', 'Features', 'Learn', and 'Education'. The main content area features a large banner with the heading 'The Future of Consumer Robotics — Now'. The banner text reads: 'Designing a successful robotics platform takes careful consideration of a multitude of factors. These include not only the hardware and software features, but also the way in which users will interact and utilize the platform. We've crafted the Cozmo SDK to be powerful but easy to use, complex but not complicated, and versatile enough to be used in industries ranging from entertainment to academia.' Below the text are two buttons: 'GET STARTED' and 'WATCH VIDEO'. The banner image shows a woman smiling at a laptop with a Cozmo robot and its SDK components on the desk. Below the banner is a quote: "[The SDK] allow[s] access to a variety of very sophisticated features through relatively simple lines of code." attributed to 'IEEE SPECTRUM'. There are four dots below the quote, with the first one filled.

3. Install the SDK on your system by selecting instructions for your computer's operating system. Videos showing the installation steps along with full text-based documentation will be provided. Follow the steps and complete the setup.



4. The [troubleshooting section](#) will highlight tips, and [Cozmo SDK Forum](#) has common questions and general discussion

V. LAB OUTCOME:

1. By the end of Lab#1, you should have the Cozmo app connected to your phone; and be able to control Cozmo through your phone
2. You should have the Cozmo SDK, python installed and mobile/tab setup ready to execute programs on the robot with your phone/tab acting as the server to push commands. The image below illustrates the flow of control.



Hardware setup for the Cozmo SDK.

VI. References:

- [1] developer.anki.com
- [2] CMU Cognitive Robotics Course
- [3] <https://anki.com/en-us/cozmo.html>