Guide to WLKATA Mirobot

Contents

[About 1](#_Toc138930792)

[Requirements 1](#_Toc138930793)

[Installation 1](#_Toc138930794)

[Execution(please paste this into IDE) 3](#_Toc138930795)

[Picture Guide and Tips 7](#_Toc138930796)

# About

The following document is a guide to allow users to expedite their progress in being able to use the WLKATA Mirobot. There is also an example script in the demonstration section which can be used to explore the Mirobot functionality or develop more advanced functions.

# Requirements

The following software and libraries should be downloaded and installed to be able to develop scripts for the Mirobot:

*-Python*(https://www.python.org/)

*-WLkata Mirobot library*(https://document.wlkata.com/?doc=/wlkata-mirobot-resources-for-education/python-sdk/)

*-OpenCV*

*-Mediapipe*

*-CVzone*

# Installation

To install PyCharm , Python, Mediapipe, OpenCV, cvzone and Mirobot library, the installation section in this video, <https://www.youtube.com/watch?v=WQeoO7MI0Bs&ab_channel=Murtaza%27sWorkshop-RoboticsandAI> (4:37) can be used as a guide. Though only OpenCV library is shown being installed, the remainder libraries can also be installed using this table with specified versions used in the script in the next section. The video mentioned above is also very useful in understanding the application of OpenCV in the script attached in the execution section.

A picture containing text, screenshot, number, font

Description automatically generated

# Execution(please paste this into IDE)









# Picture Guide and Tips

A picture containing handwear, hand

Description automatically generated

Controls the depth or the Mirobot extending forward

Control the movement of the Mirobot moving sideways

Control the movement of the Mirobot moving sideways

*Note: Right hand and Left hand sometimes switches for unknown reason and has not been rectified.*

Tips

- It is essential to learn python programming and be able to write functions at least to understand and create your own script.

- Using built libraries like CV zone is easier than developing own functions using Open CV. However, if there is a need to develop new function, one should learn how to create their own functions in Open CV(watch Murtaza’s workshop in YouTube)

- There are two Mirobot libraries used in the script. One is redundant and its functions were not called. The one in the link under ‘Requirements’ was used.

- The grabber can be attached onto the Mirobot using this screwdriver

A blue screwdriver on a white surface

Description automatically generated

- The grabber will fall off occasionally, so do keep the screwdriver close by

-