Automation Test  
User Manual

**Document History**

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| --- | --- | --- | --- |
| Date | Version | Author | Change |
| 18/06/2020 | 0 | Nam | First release |

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# Introduction

This document aims to describe how to install Automation Test Tool and it’s all features of the Automation Test Tool. This tool is used by tester to automate reader testing. The Automation Test Tool controls Dobot (Robot arm) to tap card on many positions off reader then run test all functions of card follow the right flow.

# Terminology, Abbreviations and Notations

|  |  |
| --- | --- |
| ATT | Automation Test Tool |

**Table 1. Terminology, abbreviations, notations**

# Installation

[No Update]

# Uninstallation

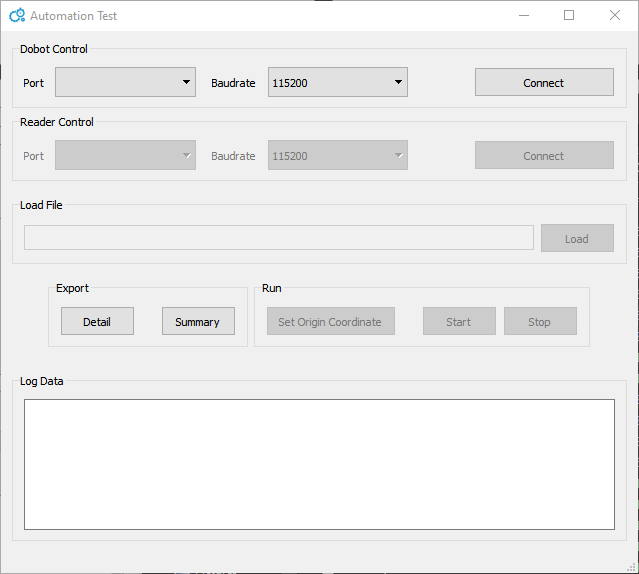
[No Update]

# Software overview

Click “Automation Test Tool” to open application.



Figure Application Icon.

****

Control Dobot connection

Control reader connection

Load file of coordinate

Log Data

Export detail report or summary report

Set new original coordinate. Start/Stop testing.

Figure Application Overview.

# Setup Hardware

The coordinate system on surface of reader. The center of coordinate system is the center of reader.



Origin Coordinate

**X-axis**

**Y-axis**

Figure Coordinate system of reader.

The coordinate system of Dobot.

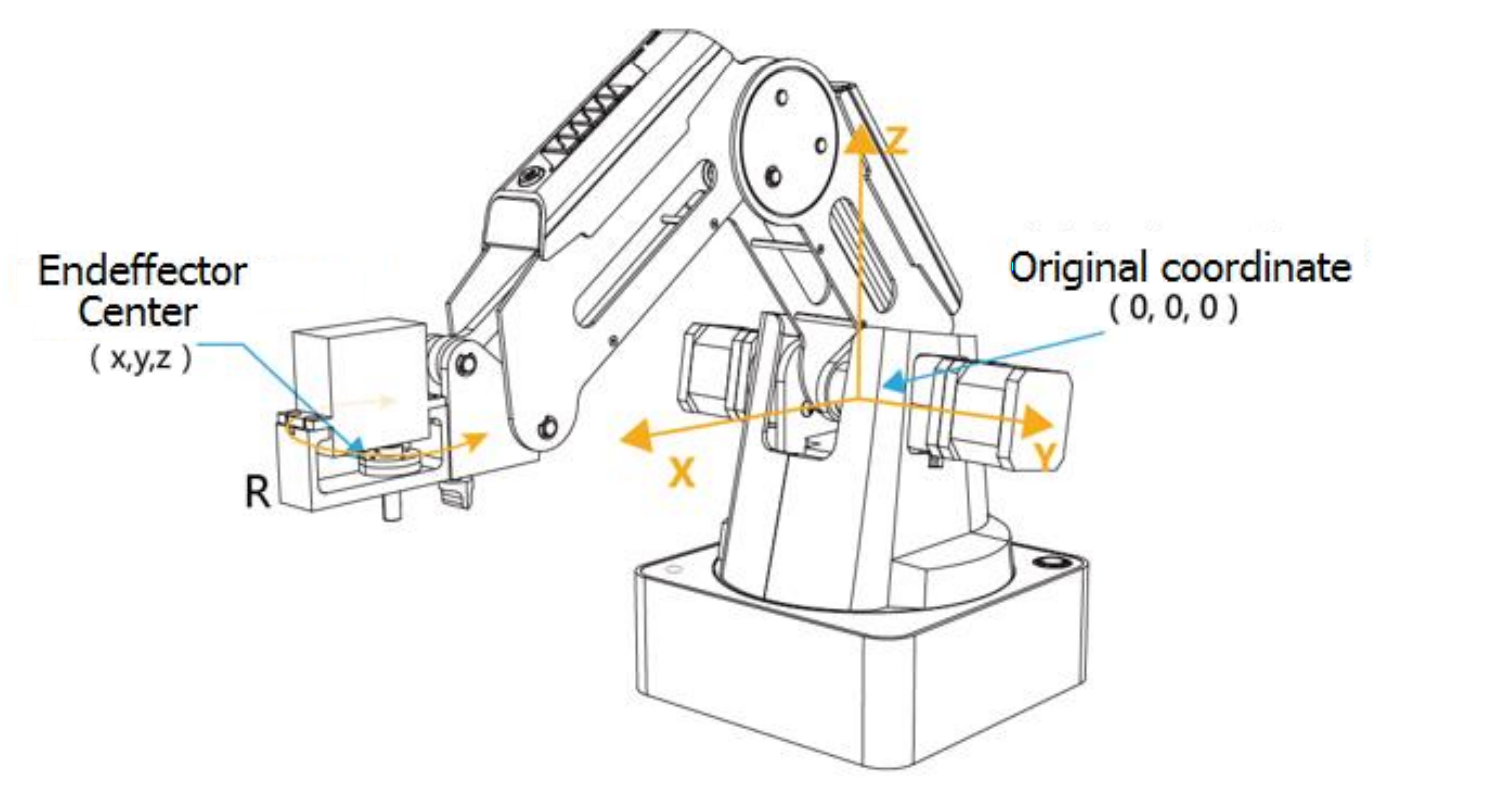
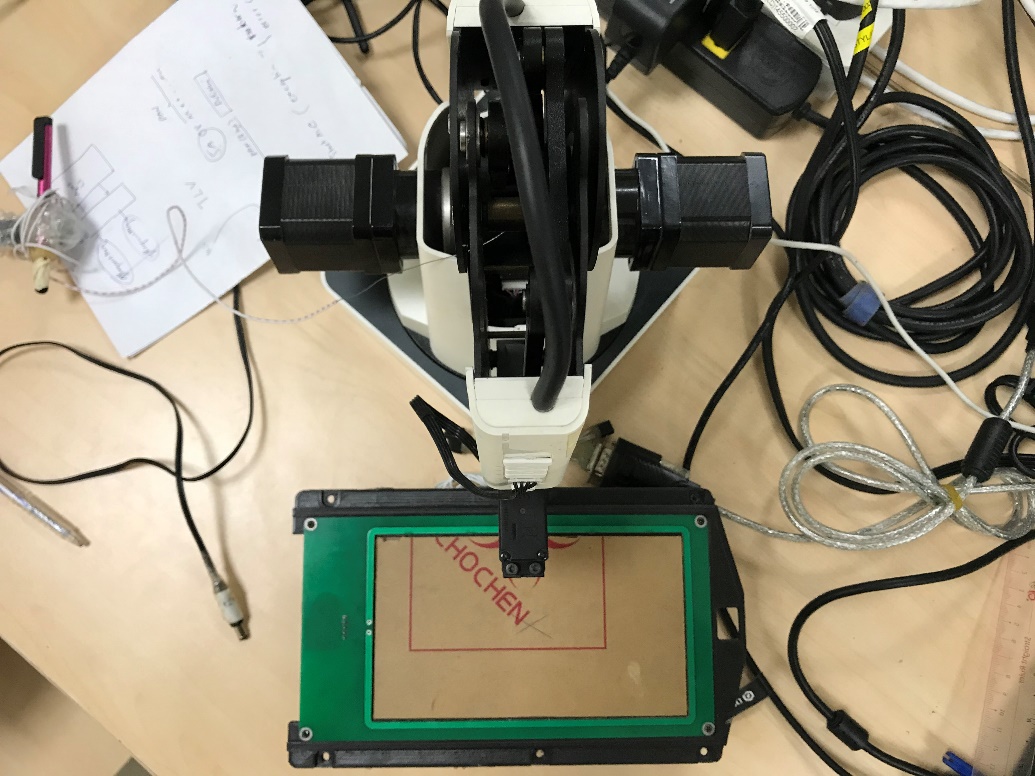


Figure Coordinate System of Dobot

Place the reader with y-axis is parallel to y-axis of Dobot. The recommended distance of the reader and Dobot is 2cm.



**2cm**

Reader’s Y-axis

Dobot’s Y-axis

Figure Place reader next to Dobot.

Turn on the power of Dobot and wait until the LED on Dobot changes to green. Reader connect to power 12V.

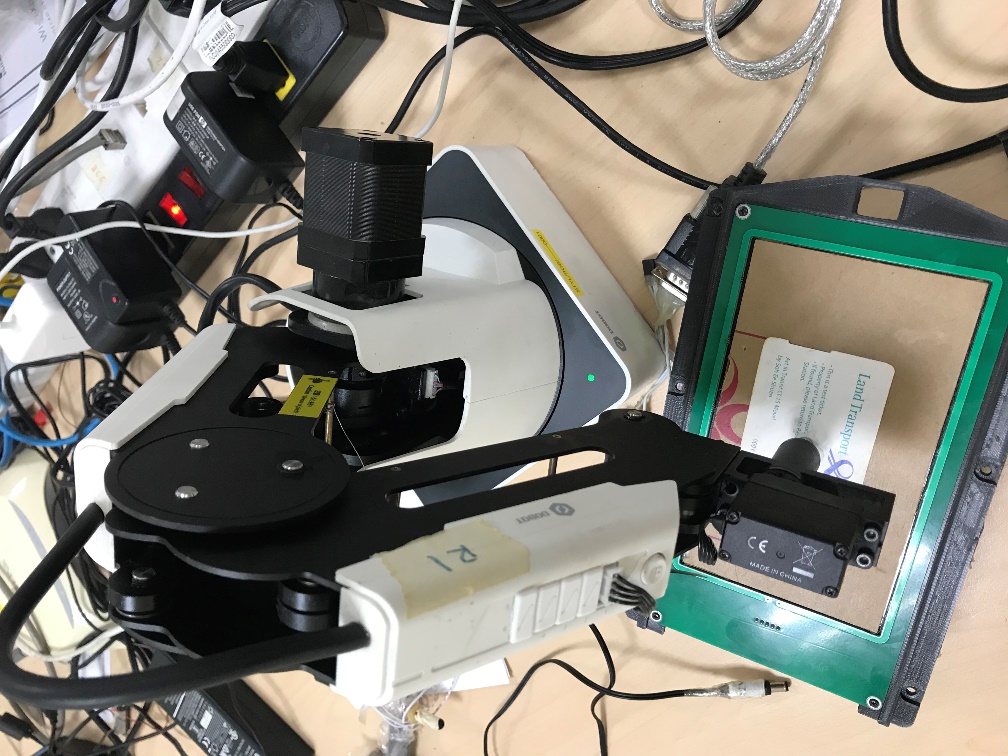


Figure Power on Dobot.

Plugin USB cable of Dobot and reader to computer.

# Usage

Press the “Unlock”  button on Dobot, and drag to the center position of the reader.



Figure Press button on Dobot.

Choose port of Dobot, click **Connect**.

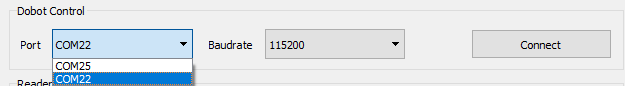


Figure Choose port of Dobot to connect.

Choose port of Reader, click **Connect**.

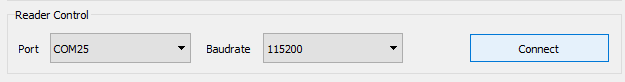


Figure Choose port of reader to connect.

Load file of coordinate.

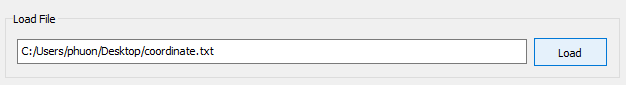


Figure Load file.

Click **Set Original Coordinate** to set new original position coordinates.

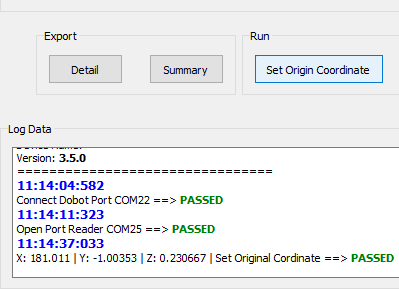


Figure Set new original coordinates.

Click **Start** to begin the test process. If you want to stop the process, click **Stop**.

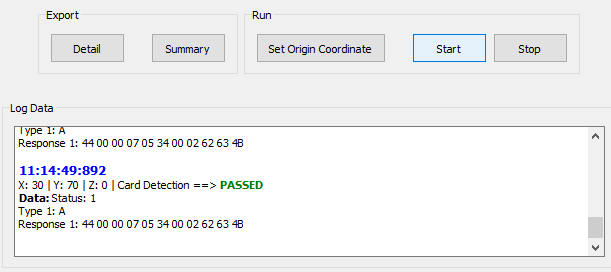


Figure Click Start/Stop to begin/stop automation test.

When the automated test is run, the received data will be printed on the “*Log Data*”.

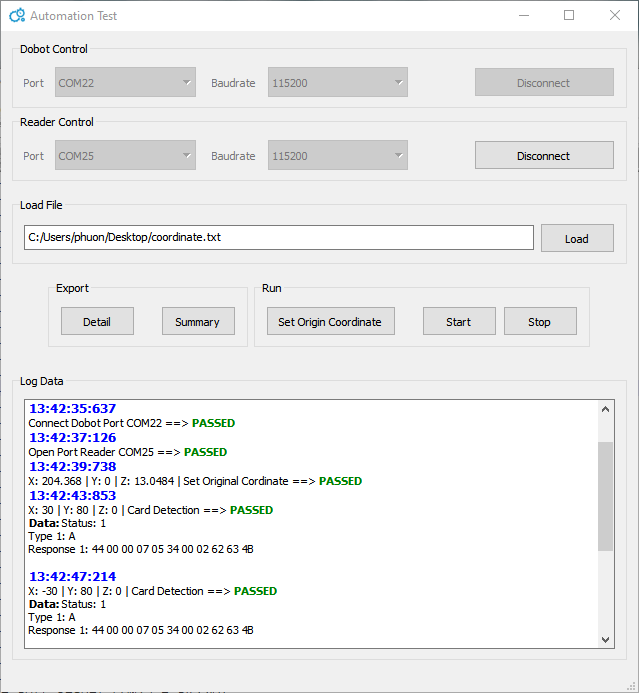


Figure . Log data when process is running.

Click **Detail**/**Summary** to export the “Detail Report” / “Summary Report”.

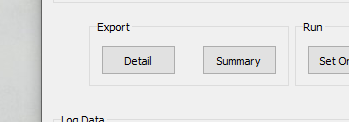


Figure Export Report.

Demo clip: [https://drive.google.com/file/d/1izyy1kKsIJ1SsB2k4ZJuISzx1zXLFZwe/view](https://drive.google.com/file/d/1izyy1kKsIJ1SsB2k4ZJuISzx1zXLFZwe/view?usp=sharing)

# Input File Description

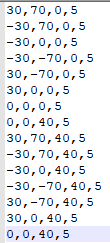


Figure Input File Description.

The file consists of multiple lines, with each line being the position and number of iterations of the test. Describe the format of each line: “x,y,z,loop”

* “x”: is a coordinate in the coordinate system, defined on the surface of the reader. The range of "x" is from -40 to 40 (unit is millimeters).
* “y”: is a coordinate in the coordinate system, defined on the surface of the reader. The range of "y" is from -80 to 80 (unit is millimeters).
* “z”: is a coordinate in the coordinate system, which is determined by the height distance from the reader surface. The range of "z" is from 0 to 80 (unit is millimeters).
* “loop”: is the number of iterations of the test. “loop” is a positive integer greater than 0, if “loop” equals 0 then the number of iterations is infinity.

# Export File Description

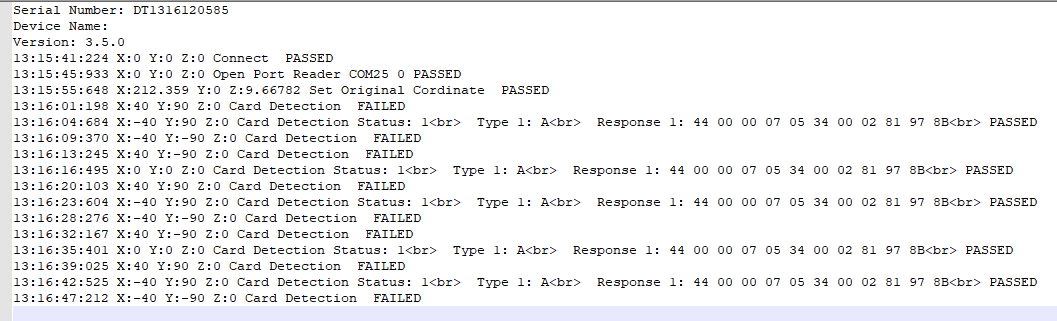


Figure Detail Report File Description.

This file is a detail report. As you see that the first three lines are the information of Dobot after connecting successfully. The next line includes:

* Time when testing a function.
* The coordinates of the position to tap the card (x y z).
* Name of function testing (Ex: “Card Detection”).
* If the test function is successful and the application receives feedback data from the reader, it will show the data and print “PASSED”. If not, it will print “FAILED”.

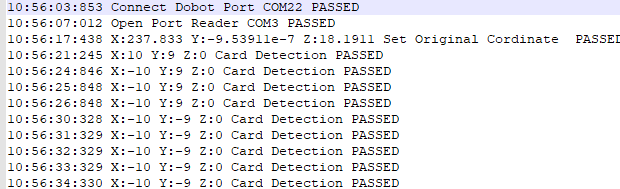


Figure Summary Report File Description.

With the summary report, it includes:

* Time when testing a function.
* The coordinates of the position to tap the card (x y z).
* Name of function testing (Ex: “Card Detection”).
* The result of testing with each function: “PASSED/FAILED”.

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