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Automation Test Tool User Manual	<Document No.>

Automation Test
User Manual

Document History

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

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Contents

1 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.

2 Terminology, Abbreviations and Notations

ATT	**Automation Test Tool**

Table 1. Terminology, abbreviations, notations

3 Installation

[No Update]

4 Uninstallation

[No Update]

5 Software overview

Click "Automation Test Tool" to open application.

Figure 1 Application Icon.

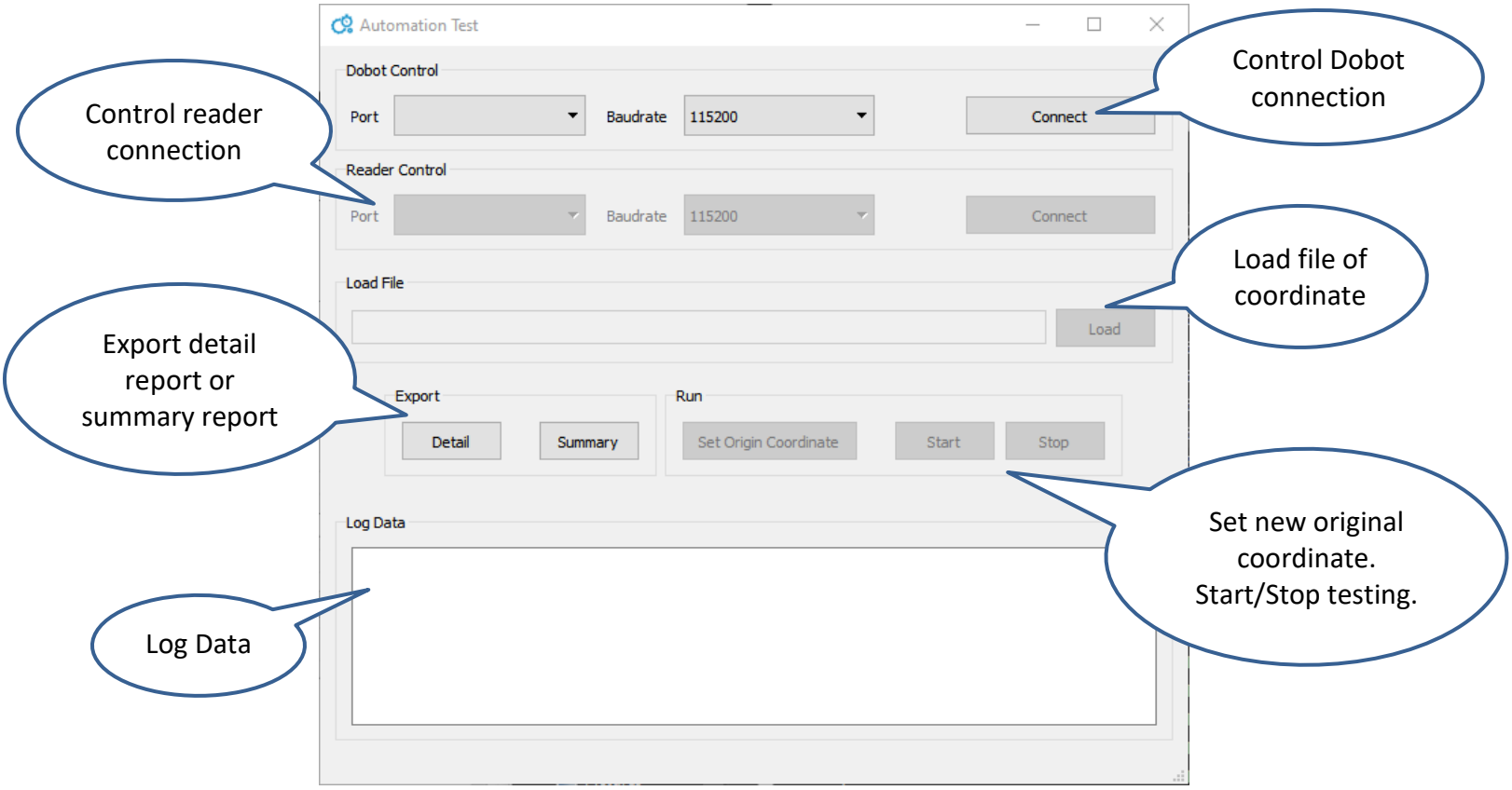

Figure 2 Application Overview.

6 Setup Hardware

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

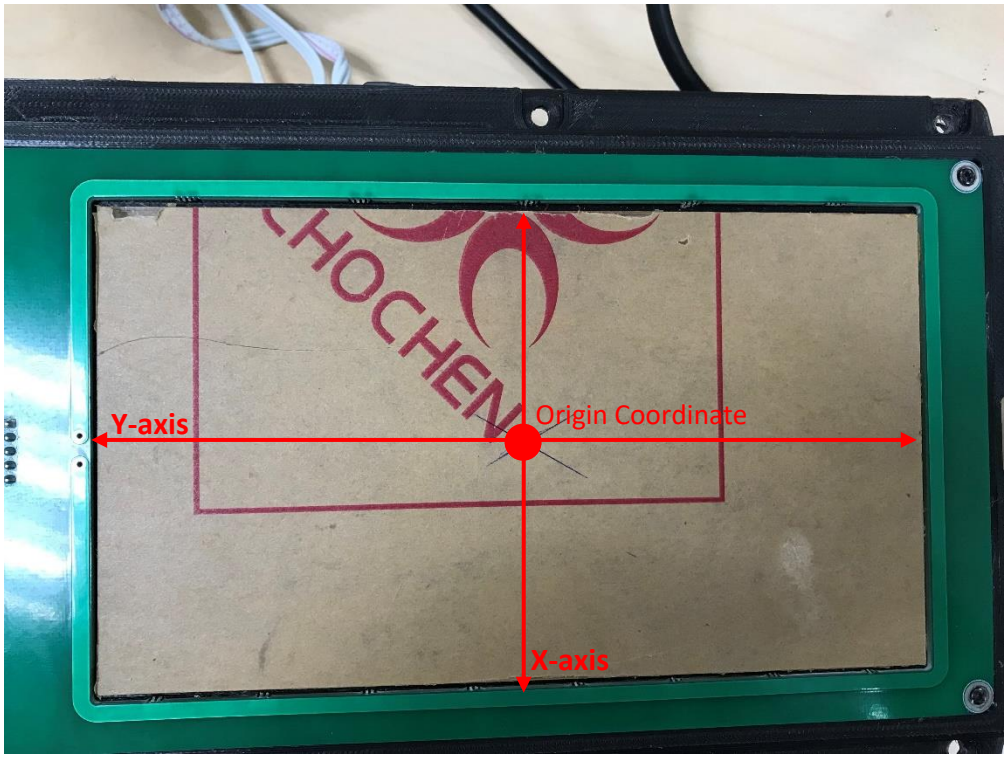

Figure 3 Coordinate system of reader.

The coordinate system of Dobot.

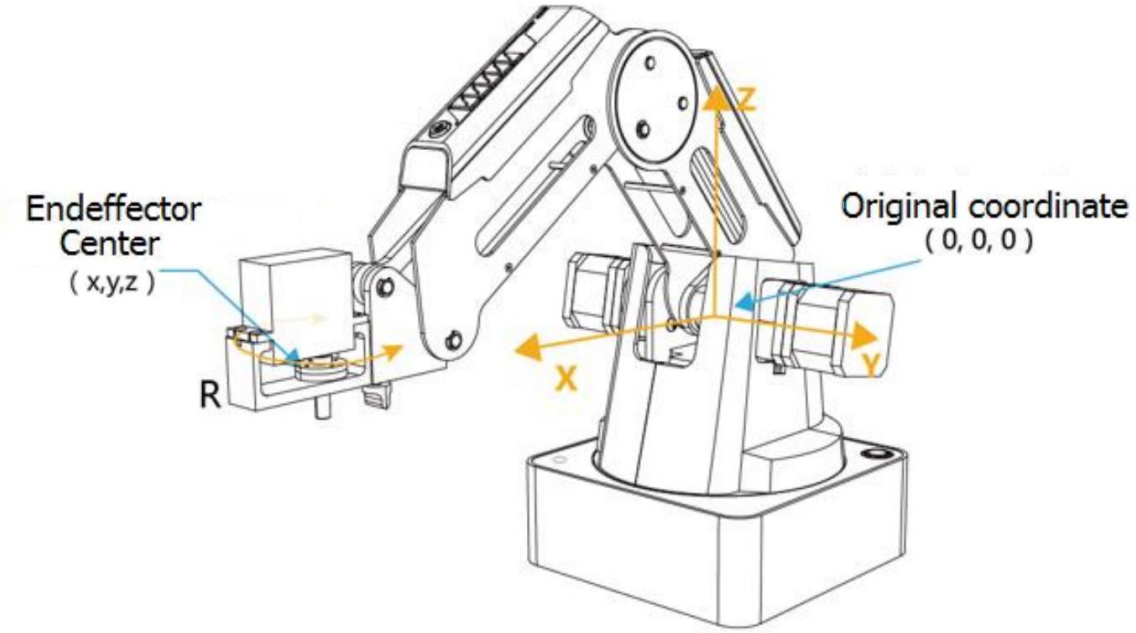

Figure 4 Coordinate System of Dobot

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

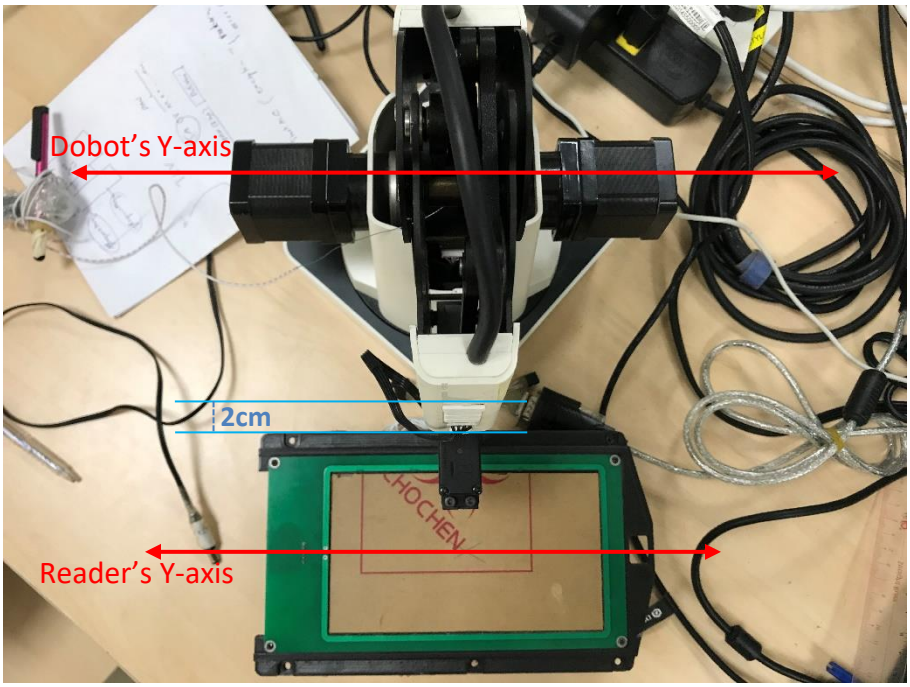

Figure 5 Place reader next to Dobot.

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

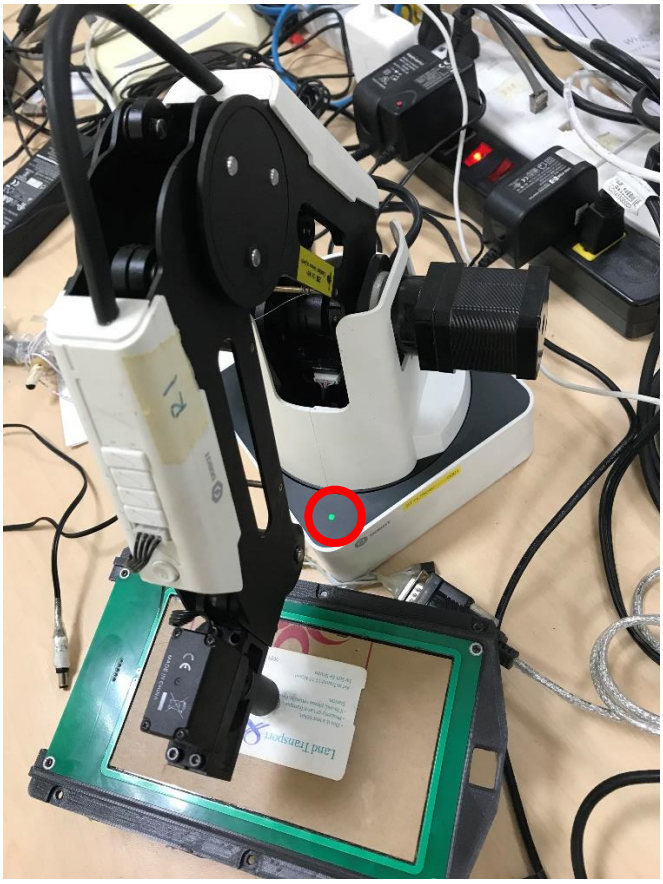

Figure 6 Power on Dobot.

Plugin USB cable of Dobot and reader to computer.

7 Usage

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

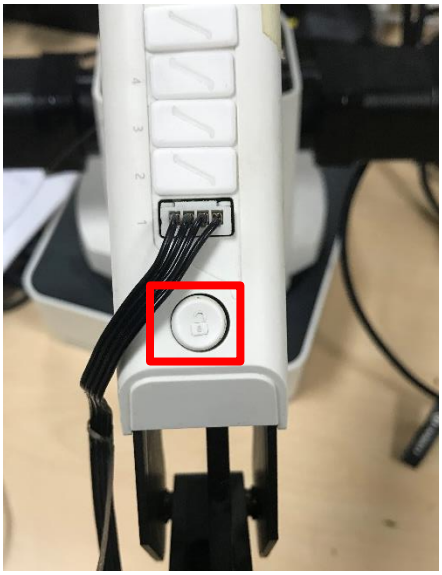

Figure 7 Press button on Dobot.

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

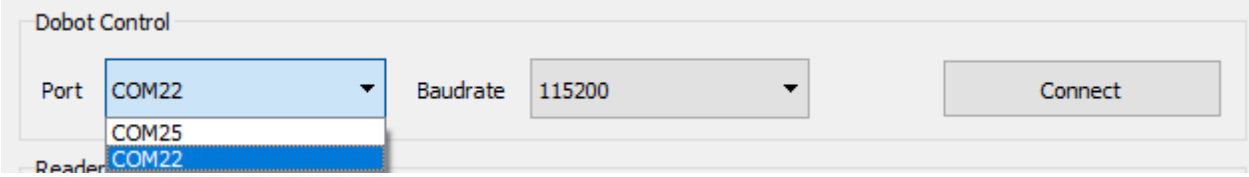

Figure 8 Choose port of Dobot to connect.

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

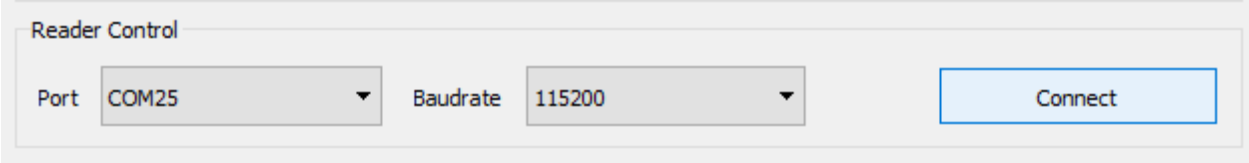

Figure 9 Choose port of reader to connect.

Load file of coordinate.

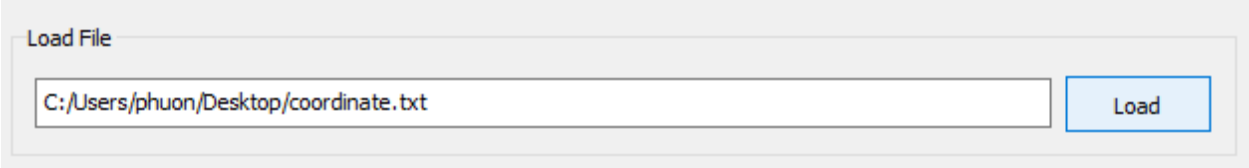

Figure 10 Load file.

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

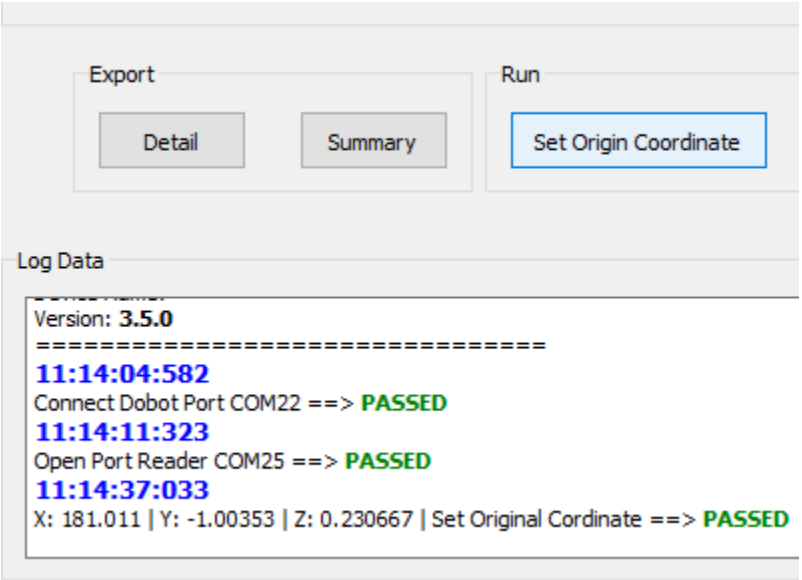

Figure 11 Set new original coordinates.

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

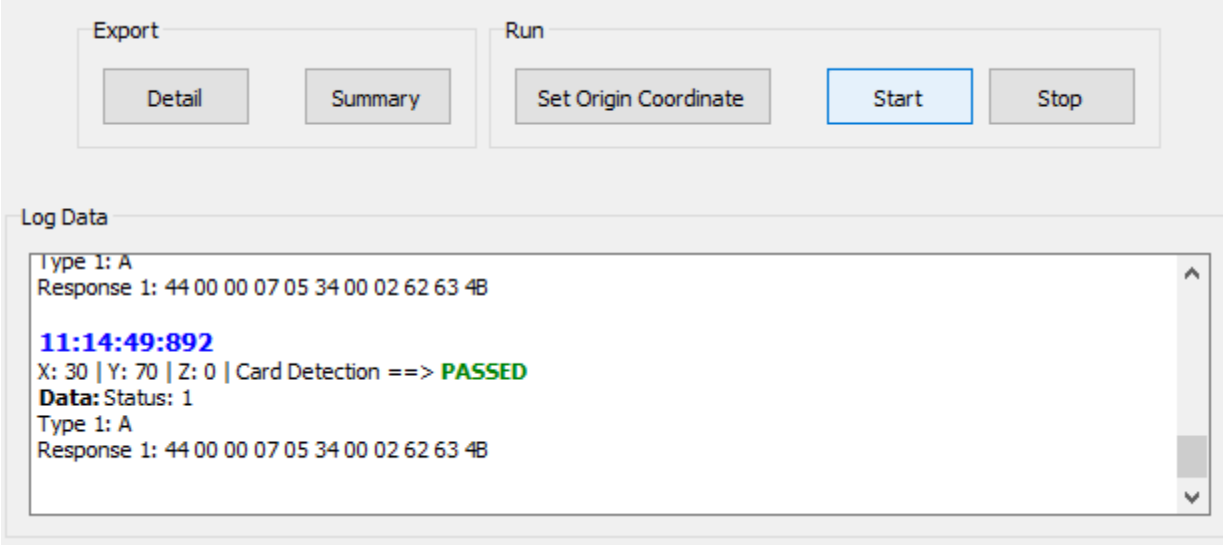

Figure 12 Click Start/Stop to begin/stop automation test.

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

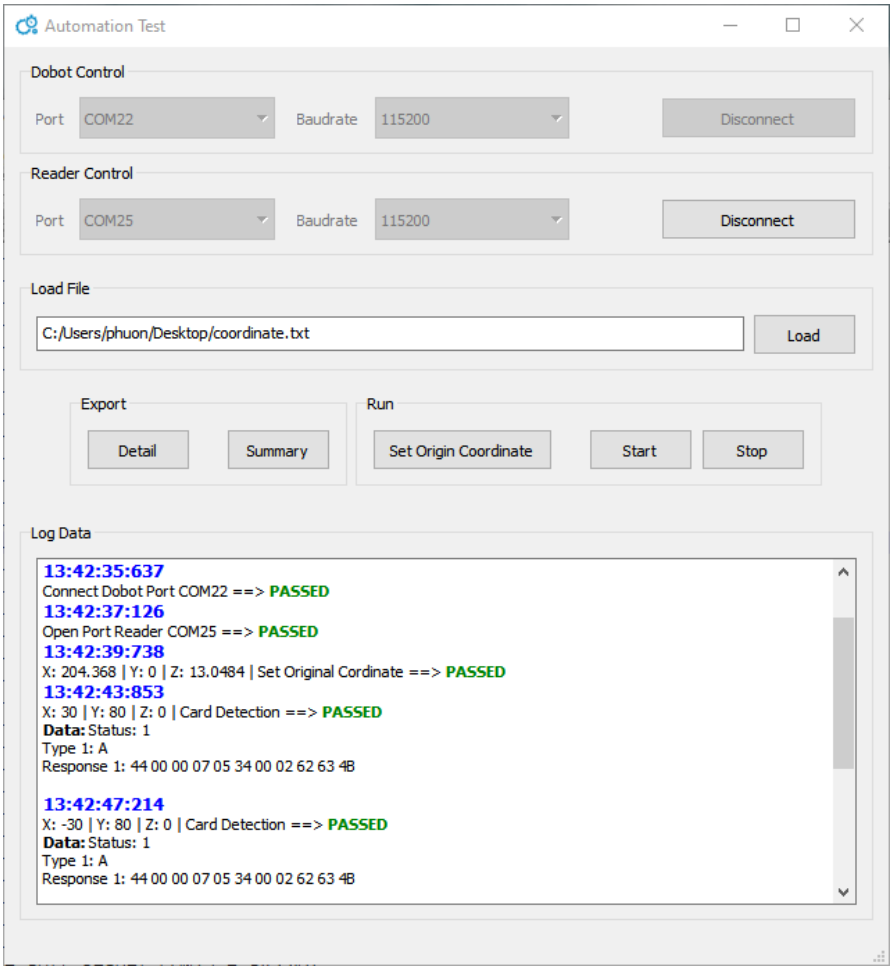

Figure 13. Log data when process is running.

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

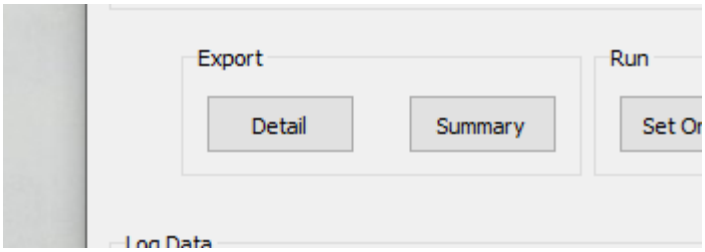

Figure 14 Export Report.

Demo clip: https://drive.google.com/file/d/1izyy1kKsIJ1SsB2k4ZJuISzx1zXLFZwe/view

8 Input File Description

```
30,70,0,5
-30,70,0,5
-30,0,0,5
-30,-70,0,5
30,-70,0,5
30,0,0,5
0,0,0,5
0,0,40,5
30,70,40,5
-30,70,40,5
-30,0,40,5
-30,-70,40,5
30,-70,40,5
30,0,40,5
0,0,40,5
```

Figure 15 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.*

9 Export File Description

```
Serial Number: DT1316120585
Device Name:
Version: 3.5.0
13:15:41:224 X:0 Y:0 Z:0 Connect  PASSED
13:15:45:933 X:0 Y:0 Z:0 Open Port Reader COM25 0 PASSED
13:15:55:648 X:212.359 Y:0 Z:9.66782 Set Original Cordinate  PASSED
13:16:01:198 X:40 Y:90 Z:0 Card Detection  FAILED
13:16:04:684 X:-40 Y:90 Z:0 Card Detection Status: 1<br>  Type 1: A<br>  Response 1: 44 00 00 07 05 34 00 02 81 97 8B<br> PASSED
13:16:09:370 X:-40 Y:-90 Z:0 Card Detection  FAILED
13:16:13:245 X:40 Y:-90 Z:0 Card Detection  FAILED
13:16:16:495 X:0 Y:0 Z:0 Card Detection Status: 1<br>  Type 1: A<br>  Response 1: 44 00 00 07 05 34 00 02 81 97 8B<br> PASSED
13:16:20:103 X:40 Y:90 Z:0 Card Detection  FAILED
13:16:23:604 X:-40 Y:90 Z:0 Card Detection Status: 1<br>  Type 1: A<br>  Response 1: 44 00 00 07 05 34 00 02 81 97 8B<br> PASSED
13:16:28:276 X:-40 Y:-90 Z:0 Card Detection  FAILED
13:16:32:167 X:40 Y:-90 Z:0 Card Detection  FAILED
13:16:35:401 X:0 Y:0 Z:0 Card Detection Status: 1<br>  Type 1: A<br>  Response 1: 44 00 00 07 05 34 00 02 81 97 8B<br> PASSED
13:16:39:025 X:40 Y:90 Z:0 Card Detection  FAILED
13:16:42:525 X:-40 Y:90 Z:0 Card Detection Status: 1<br>  Type 1: A<br>  Response 1: 44 00 00 07 05 34 00 02 81 97 8B<br> PASSED
13:16:47:212 X:-40 Y:-90 Z:0 Card Detection  FAILED
```

Figure 16 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".*

```
10:56:03:853 Connect Dobot Port COM22 PASSED
10:56:07:012 Open Port Reader COM3 PASSED
10:56:17:438 X:237.833 Y:-9.5391le-7 Z:18.1911 Set Original Cordinate  PASSEI
10:56:21:245 X:10 Y:9 Z:0 Card Detection PASSED
10:56:24:846 X:-10 Y:9 Z:0 Card Detection PASSED
10:56:25:848 X:-10 Y:9 Z:0 Card Detection PASSED
10:56:26:848 X:-10 Y:9 Z:0 Card Detection PASSED
10:56:30:328 X:-10 Y:-9 Z:0 Card Detection PASSED
10:56:31:329 X:-10 Y:-9 Z:0 Card Detection PASSED
10:56:32:329 X:-10 Y:-9 Z:0 Card Detection PASSED
10:56:33:329 X:-10 Y:-9 Z:0 Card Detection PASSED
10:56:34:330 X:-10 Y:-9 Z:0 Card Detection PASSED
```

Figure 17 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".*

Contact information

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