

**SONY**

# **Guidelines of Polling software for FeliCa Certification**

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FeliCa Business Division

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## Purpose

- Improvement of service to certified businesses
  - Improvement of customer service by shortening measurement time
  - When customer uses debug laboratories, Realize to reduction of measurement work and work time

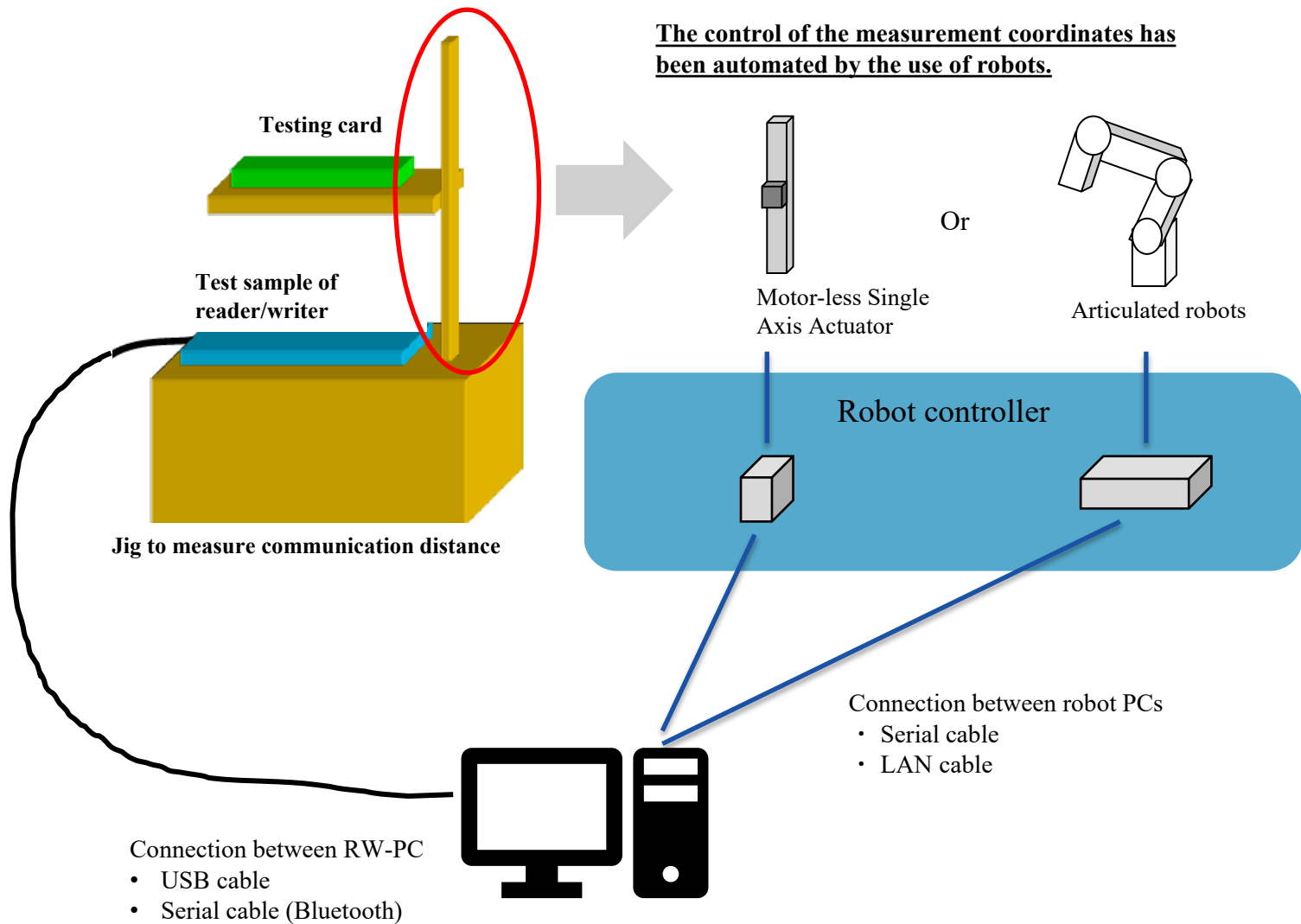
## Solution

- One-stop evaluation in which robots and RW

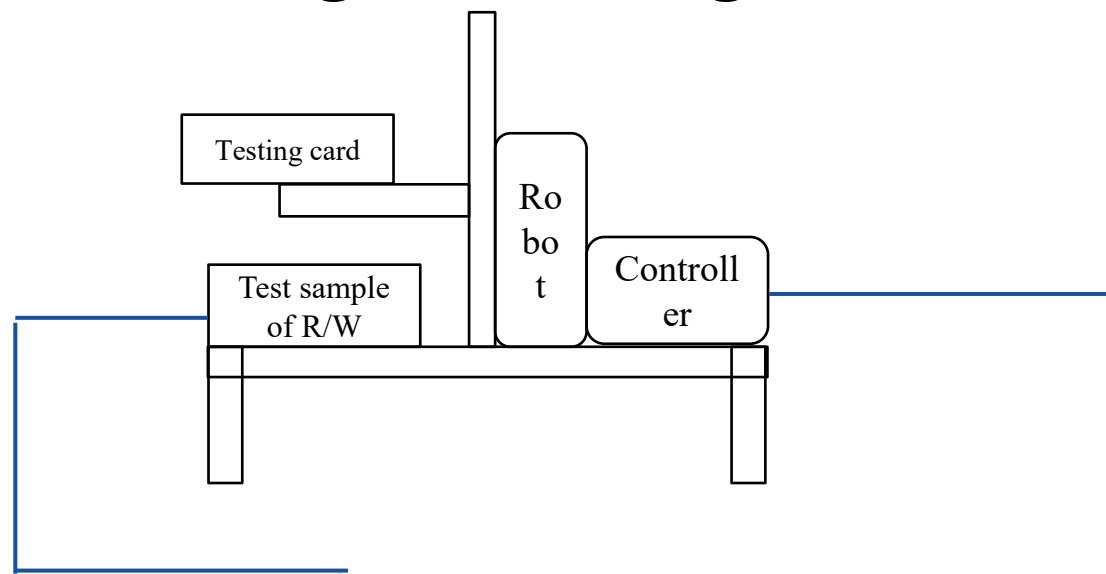
## Challenging

- Standardizing common commands for Input/Output interface of reader/writer SW

# Current evaluation system



# Current system configuration diagram



PC

Command prompt Screen #1  
Or Terminal SW

```
> Polling.exe 100
.....OOOOOOOOOO
OOOOOOOOOOOO
(Total) [95/100]... 95.00%
>
```

COM1

Polling.exe or  
Terminal SW

Problem: Non-interlocking  
After the robot moves to the distance  
Execute terminal SW manually

COM2

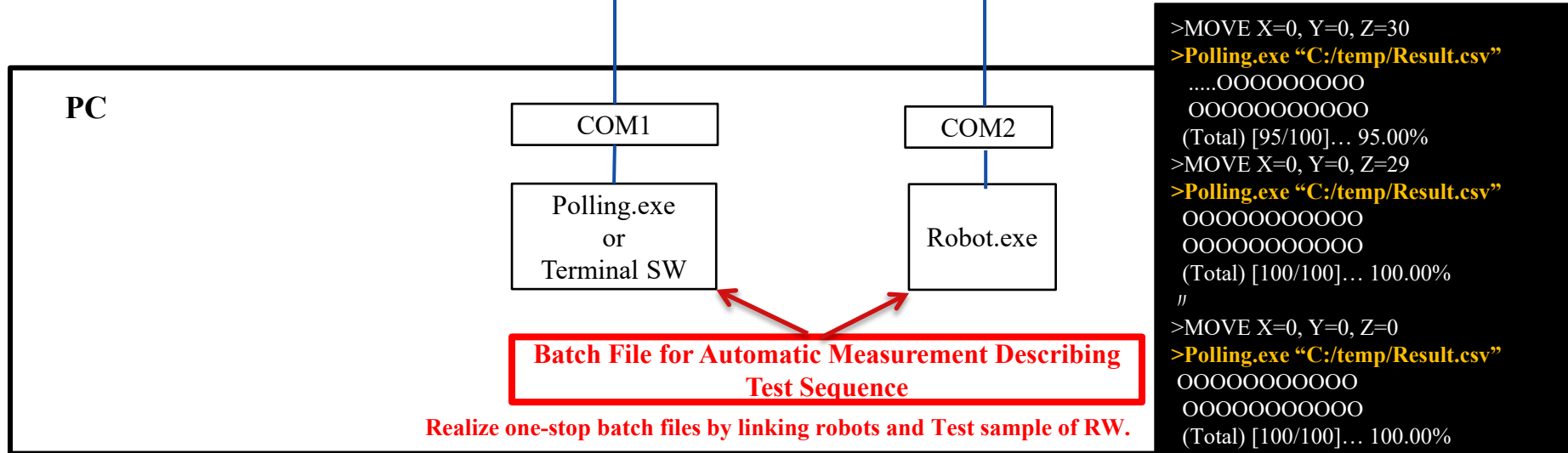
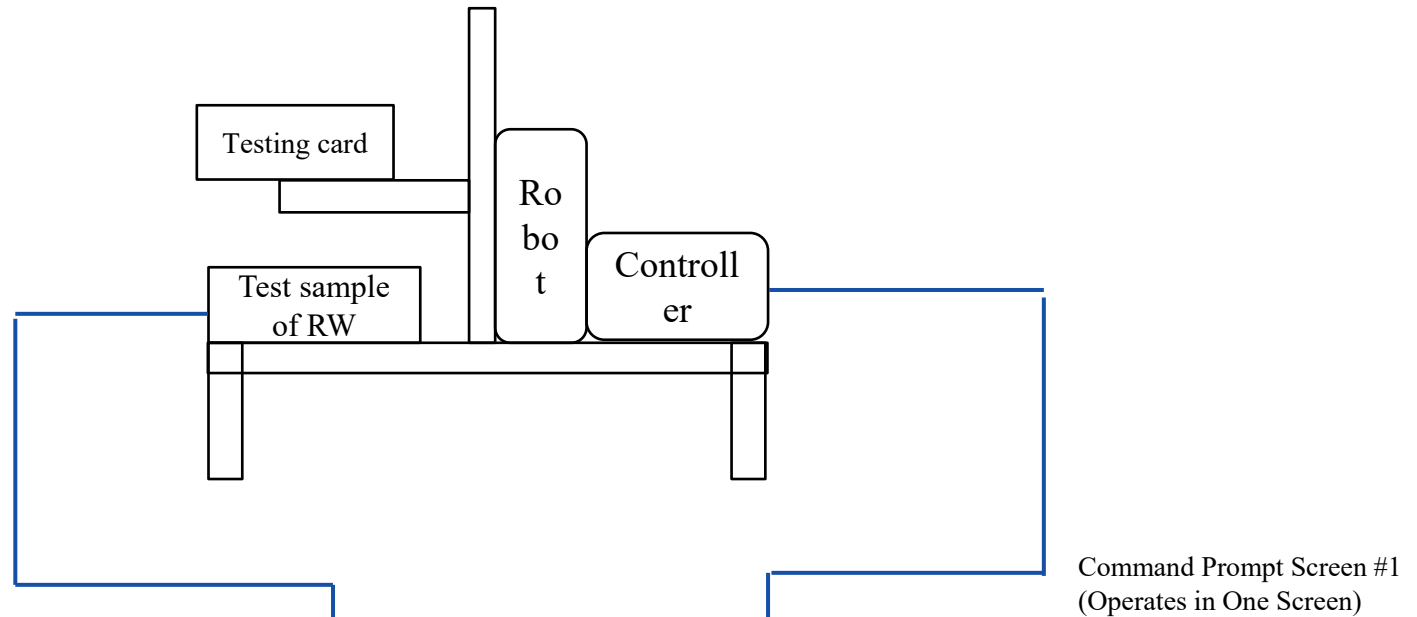
Robot.exe

Batch File for Automatic  
Measurement Describing  
Test Sequence

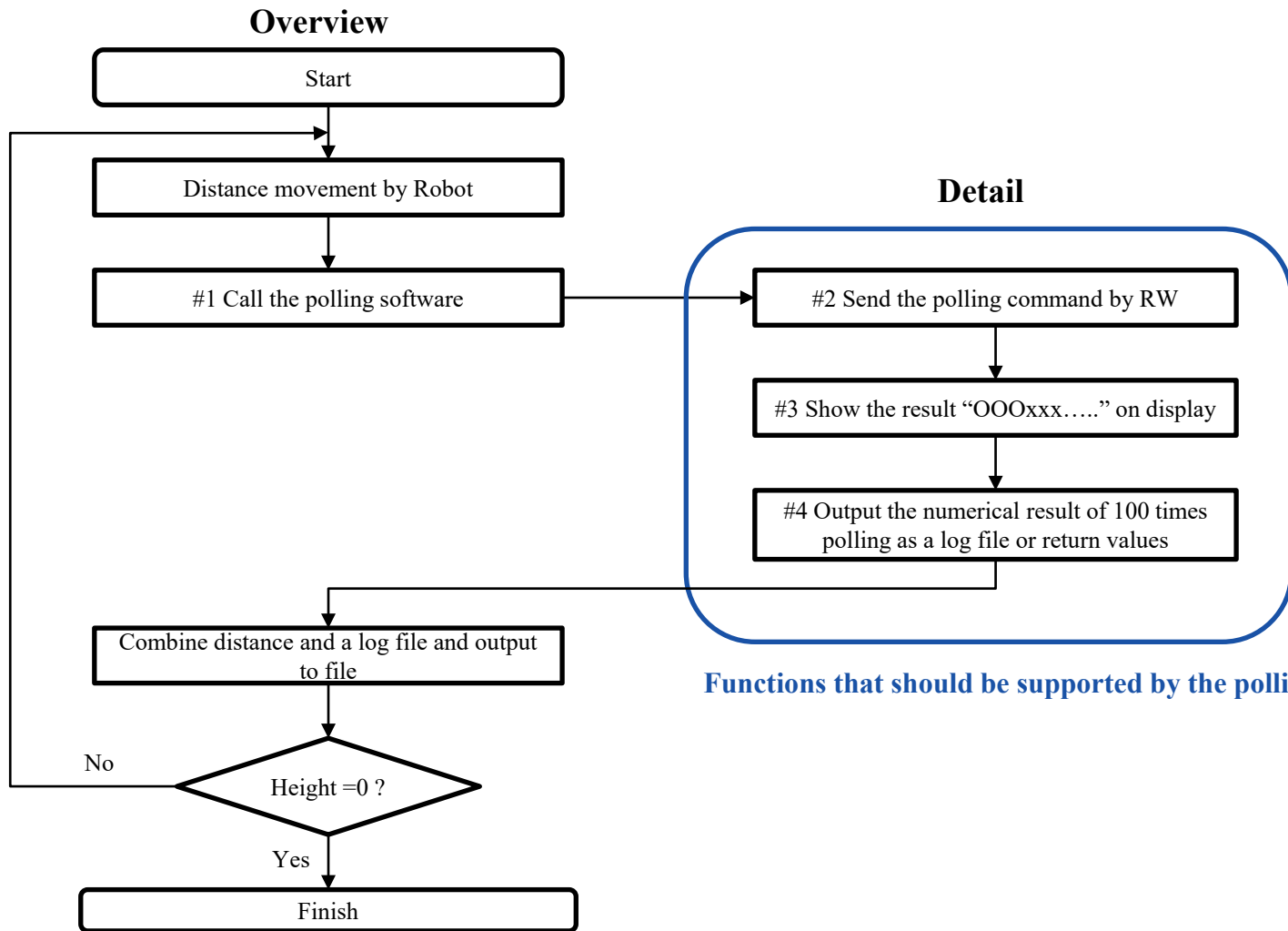
Command prompt Screen #2

```
>MOVE X=0, Y=0, Z=30
>Sleep
>MOVE X=0, Y=0, Z=29
>Sleep
//
>MOVE X=0, Y=0, Z=0
```

# Ideal system configuration



# Operation flow chart



Functions that should be supported by the polling software.

Next page explains specifications of #1 to #4

# Specification of #1 to #4

## #1. Startup/Call

<All items required>

1. Windows OS can be called from a BAT file on a console program, and control can be returned to BAT file after the operation is completed.
2. If serial communication is used, the serial port must be specifiable as an parameter when calling from a BAT file. (Argument for direct specification in bat file: c COM1)
3. Unnecessary arguments can be ignored even if unnecessary arguments are set at the time of invocation.

### **Note:**

Even when the operation is realized through communication control software TeraTerm (TeraTerm macro) etc., all of the requirements in the preceding paragraph must be satisfied. (for example, to create a BAT file that invokes a Tera Term macro.)

RW screen must be operated as a set-up prior to the start of measurement. However, the polling command must be sent and terminated only by the control from the PC without touching RW screen while the communication distance is being measured.

# Specification of #1 to #4

#2. Polling command-execution-condition [6.4.3] in the “FeliCa Reader/Writer RF Performance Certification Specification”

<All items required>

1. Parameter condition

System Code: FFFFh, Timeout Time: 200[msec], Time-slot: 00h

2. Number of runs

Polling must be executed 100 times consecutively within 25 seconds.

3. Result judgment condition

1. Success: The test sample can receive Polling normal response packets (including response code and IDm, PMm) within the timeout period for one Polling command transmission.
2. Failed: The test sample for one Polling command transmission is not responding within the timeout period or Polling normal response packet cannot be received.



# Specification of #1 to #4

## #3 Screen display [6.4.4] [6.4.5] in the “FeliCa Reader/Writer RF Performance Certification Specification”

<All items required>

1. Screen display of success failure result
2. Count and display of number of consecutive executions/number of successes
3. Totaling the correct answer rate and displaying it on the screen

### **Note:**

The screen display of the result should be possible if the situation can be visually confirmed. It can be on the console or on its own GUI display. However, it is desirable that the results can be verified in real time during the study.

## #4 Measurement results

<Corresponding to any of the following items>

1. Returns the measured result as a return value (correct answer rate for 0-100:Polling command,-1: Abnormal termination of software).
2. The software should be able to output measurement results to a log file in text format (e.g., csv file). It is desirable for the caller to be able to specify the output file name of the log output as an argument. To reduce the time and effort required to modify the one-stop batch files, we strongly request that the argument be "f filename" like "polling.exe f data.csv". Also, please describe the type and format of output data in the operation manual. Please refer to page 10.

# Ex. Batch file sample with log file

## Batch file

```
@echo off  
set dist=30
```

```
:loop  
robot.exe c/com5 /d:%dist%  
Call polling.exe c com1 f result.csv  
echo %dist% >> result.csv
```

```
set /a dist = %dist% -1  
if %dist% GTR 0 goto loop  
@echo end of batch file
```

## Output Format of log in your polling software

```
fprintf_s(fp, "%6.2lf%%, %4d, %4d,"  
    ,percentage  
    ,(total_count - total_error_count)  
    ,total_count  
    );
```

```
percentage: Success Rate  
(total_count - total_error_count): Success Count  
total_count: Sending Count
```

# Ex. Batch file sample with return values

## Batch file

```
@echo off
set dist=30

:loop
robot.exe c/com5 /d:%dist%
Call polling.exe c com1
echo %errorlevel%%%, (100- %errorlevel%), 100, %dist% >> result.csv

set /a dist = %dist% -1
if %dist% GTR 0 goto loop
@echo end of batch file
```

In case of “total\_count=100”

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