

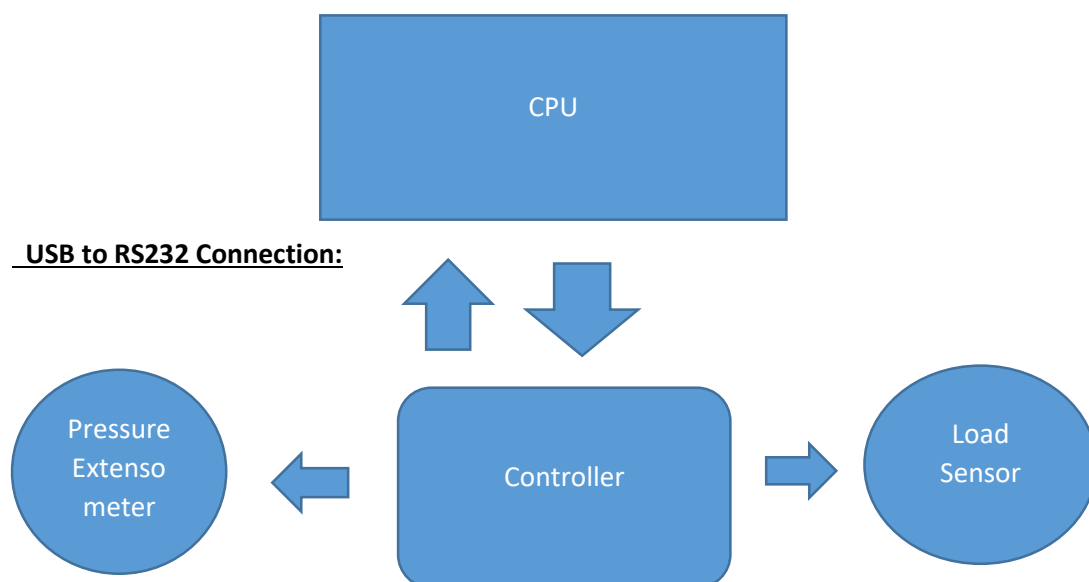
# Expansion Testing Machine 2.0

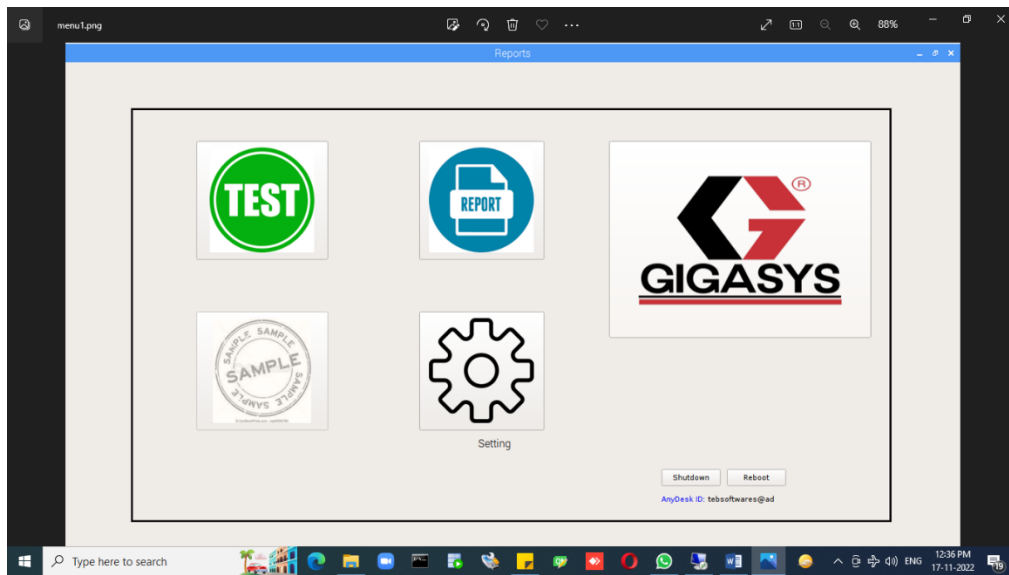
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## 1.Introduction :

Following is the block diagram for the expansion testing software.





## 2.TEST:

Test.png

MainWindow

Test ID: 008

Spec.Name: New Item

Nominal Outer Dia: 123 (mm)

Gread: X42 PSL 2

Nominal Wall Thickness: 5.4 (mm)

Specified Yield Strength (SMYS): 290-495 (MPa)

Tested By: DB

Sample Identification #: 31489517

Sample Description: EGP Pipeline Project

Mill Hydrotest Pressure: 0 (MPa)

Preload Pressure: 13.58 (MPa)

Pressure Transducer #: 4136608-008

"Force Span" On PDSC: 50.50 (%)

Last Calibration Date: 18/02/2015

Extensometer No: 1

"Position Span" On PDSC: 111.48 (%)

Last Calibration Date: 18/02/2015

Max Elongation %: 0.50 (%)

Preload %: 111.48 (%)

NEVER EXCEED Test Pressure: 21.44 (MPa)

Extensometer Chain Length: 28.5 Links

Max extension: 3.44 (mm)

Extension Rate: 3.44 (mm/min)

November 17, 2022 12:15

Expansion Test

Email

Report View

Report Print

Remark

Stress Vs Strain

Pressure Vs Ext

Sample Measurements (After Preload, If Required)

OK to TEST.

Thickness 1: 5.39 (mm)

PreLoad Pressure: 13.6 (MPa)

Tested?: YES

Thickness 2: 5.43 (mm)

Diameter 1: 219.49 (mm)

D.Avg: 219.47 (mm)

Thickness 3: 5.4 (mm)

Diameter 2: 219.46 (mm)

T.Avg: 5.44 (mm)

Thickness 4: 5.48 (mm)

Diameter 3: 219.45 (mm)

Y-Axis: 10.0

Thickness 5: 5.48 (mm)

Sample Width: 75.82 (mm)

X-Axis: 25.0

Thickness 6: 5.44 (mm)

Set Graph

Return

Stress(Mpa)

Strain(%)

Start

Stop

Selected Elastic Zone Data Points:

Min Ext: 0.35 (mm)

0.5 % YE Yield Strength: 0 (MPa)

Max Ext: 0.75 (mm)

Modulus of Elasticity: 0 (GPa)

Max. Pressure: 36 (MPa)

Review By: Ian Duncan

Date: November 17, 2022

Stress (MPa)

Strain (%)

10

8

6

4

2

0

0

5

10

15

20

25

## 5.REPORTS:

### List Reports:

Reports-List.png

MainWindow

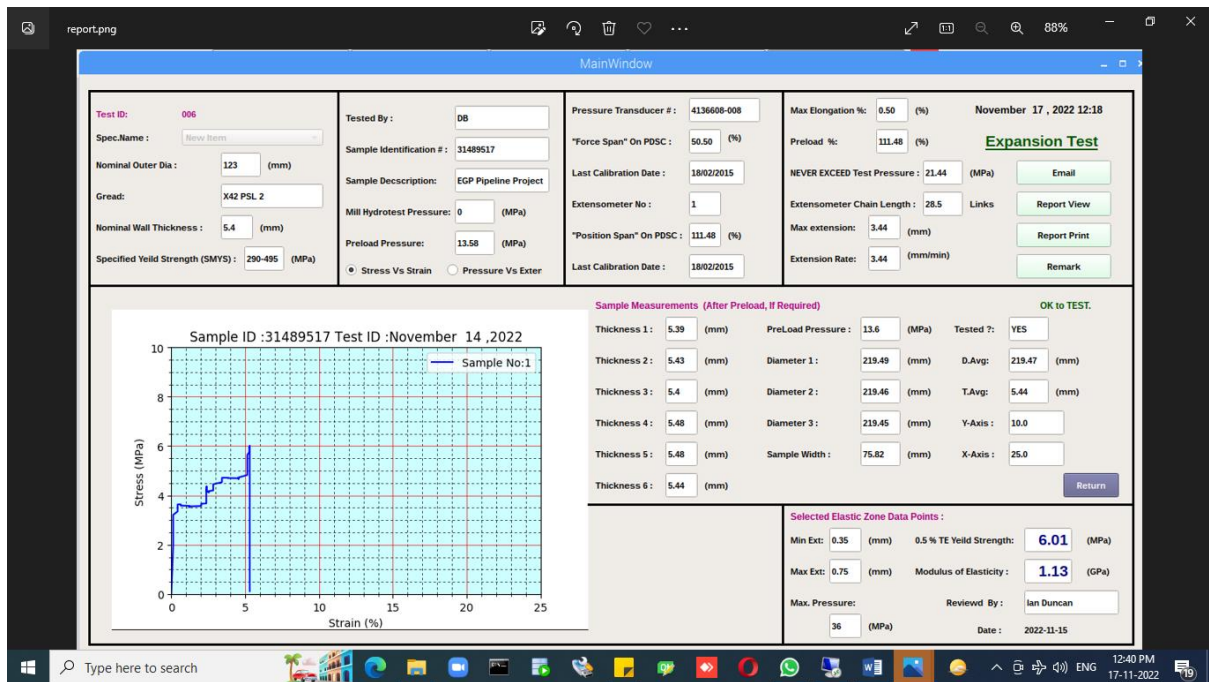
FROM: 2022-11-01 DATE HH: 00 MI: 00 17 Nov 2022 12:17:46

TO: 2022-11-17 DATE HH: 23 MI: 59 UNIT : MPa/mm Delete SEARCH RETURN

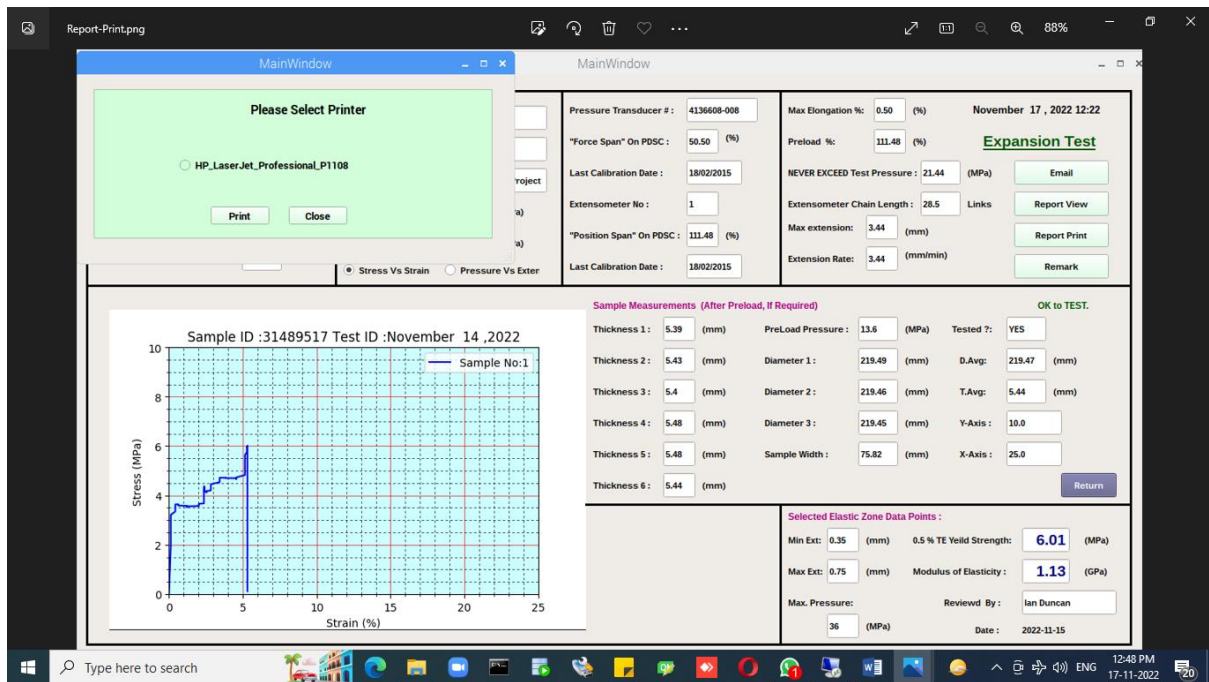
Test No.	Test Date	Sample Identification No.	Sample Description	Remark
1 <input type="checkbox"/> 2	2022-11-15 05:29:14	31489517	EGP Pipeline Project	We can send the email id sarerr@gmail.com
2 <input type="checkbox"/> 3	2022-11-15 05:29:36	31489517	EGP Pipeline Project	None
3 <input type="checkbox"/> 4	2022-11-15 08:50:53	31489517	EGP Pipeline Project	None
4 <input type="checkbox"/> 5	2022-11-15 09:04:46	31489517	EGP Pipeline Project	None
5 <input type="checkbox"/> 6	2022-11-15 11:16:52	31489517	EGP Pipeline Project	None
6 <input type="checkbox"/> 7	2022-11-15 11:31:54	31489517	EGP Pipeline Project	None

Type here to search

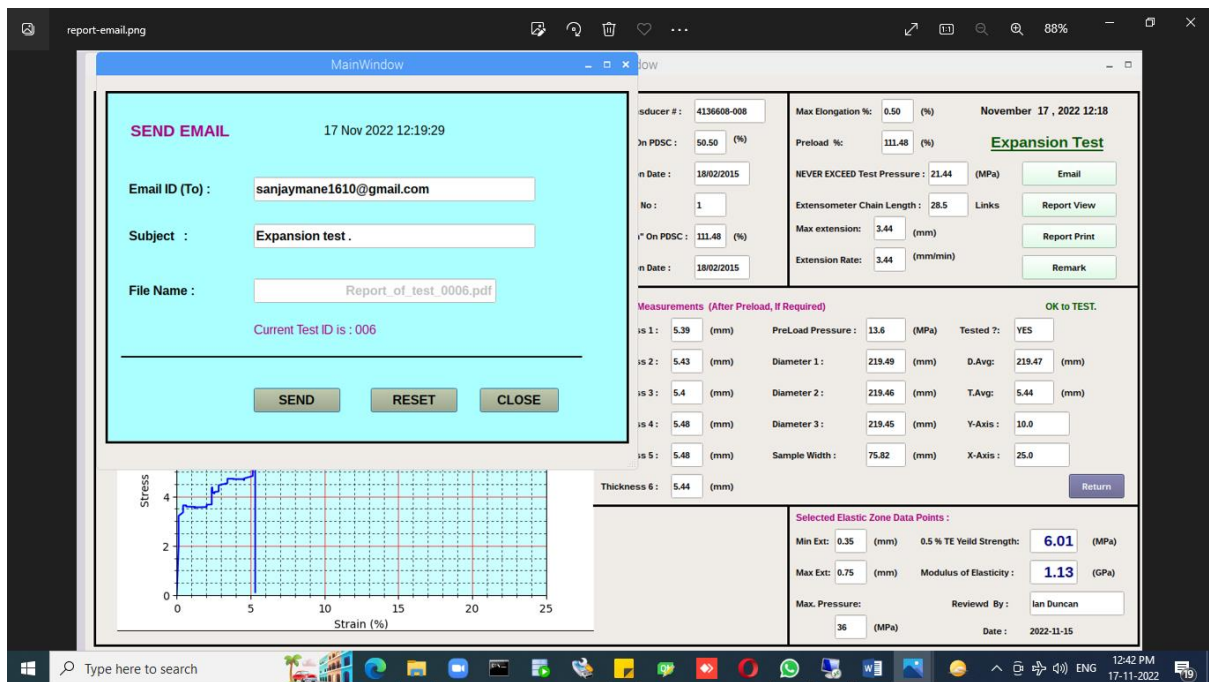
12:39 PM 17-11-2022 ENG 19



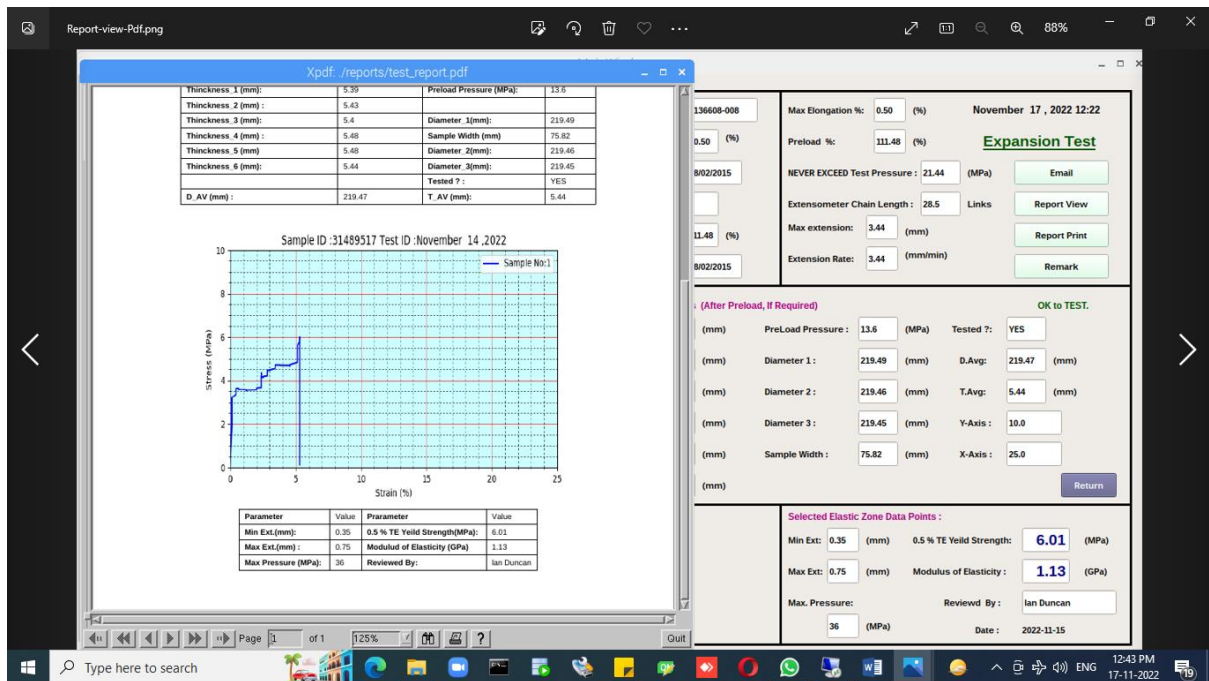
Print Report:



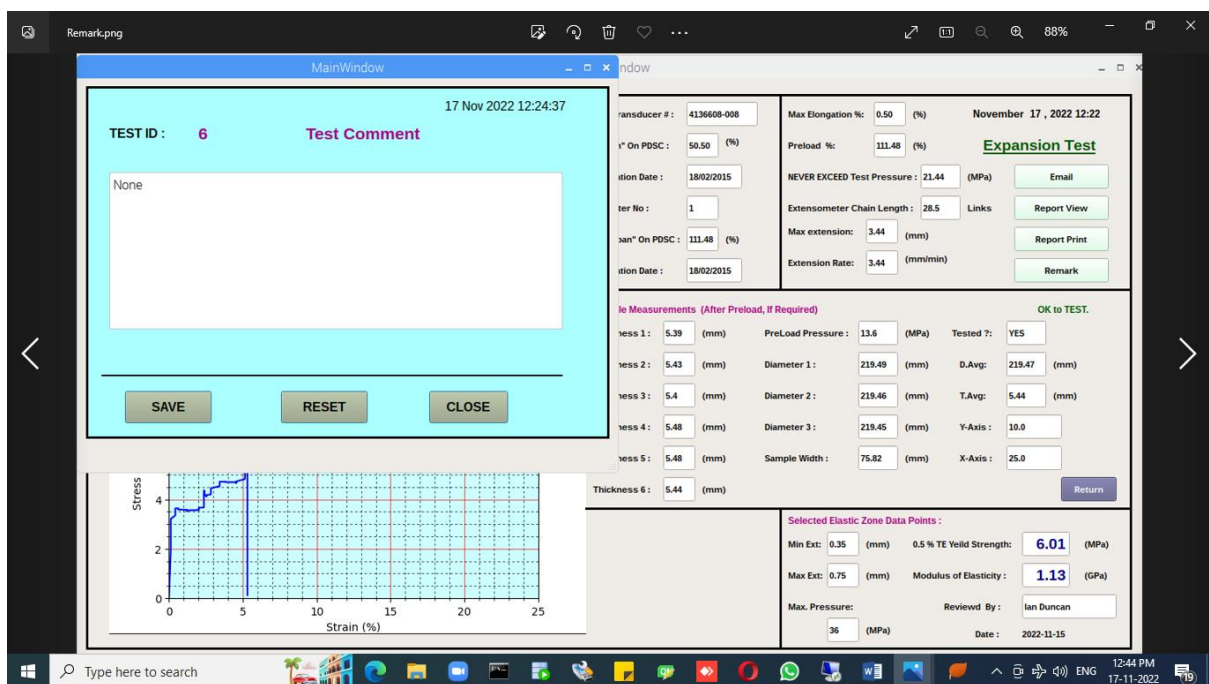
Email Report:



View –PDF Report:



Add Remark:





## 6.SETTING:

The screenshot shows a Windows desktop with a taskbar at the bottom. The taskbar includes the Start button, a search bar with the text "Type here to search", and several application icons. The system tray on the right shows the time as 12:50 PM on 17-11-2022, along with icons for network, volume, and other system functions. The main window is titled "app-break.png" and contains a "System Setting" dialog box. The dialog box has a title bar "MainWindow" and a "Copy PDF reports to USB" button. It is divided into four sections: "Company Details", "Date Setting", "Configuration", and "Graph Scale". The "Company Details" section has fields for "Company Name" (GIG SYS Inc.), "Address" (Office Address Here), and "Contact. No." (9773540255). The "Date Setting" section shows the "Current Date" as 17 November 2022 12:25:55 and a "New Date" field with "Date", "HH", "MM", and "SS" dropdowns, along with "Set" and "Reset" buttons. The "Configuration" section has fields for "AutoReverse Time(Sec)" (4), "Motor Test Speed(RPM)" (100), "Motor Max Speed (RPM)" (500), and "Breaking Sense (Kg)" (2). The "Graph Scale" section has radio buttons for "Auto Scale" and "Manual" (selected), and fields for "Load (Y-Axis)" (50000) and "Length (X-Axis)" (25). At the bottom of the dialog box, there is a "Device Id: 201909:0002" label and a row of buttons: "Save", "Reset", "Configure Tests", "Factory Reset", "Return", and "E-Mail Setup".

app-break.png

MainWindow

### System Setting

Copy PDF reports to USB

**Company Details**

Company Name: GIG SYS Inc.

Address: Office Address Here

Contact. No: 9773540255

**Date Setting**

Current Date: 17 November 2022 12:25:55

New Date: Date HH: 00 MM: 00 SS: 00

Set Reset

**Configuration**

AutoReverse Time(Sec): 4

Motor Test Speed(RPM): 100

Motor Max Speed (RPM): 500

Breaking Sense (Kg): 2

**Graph Scale**

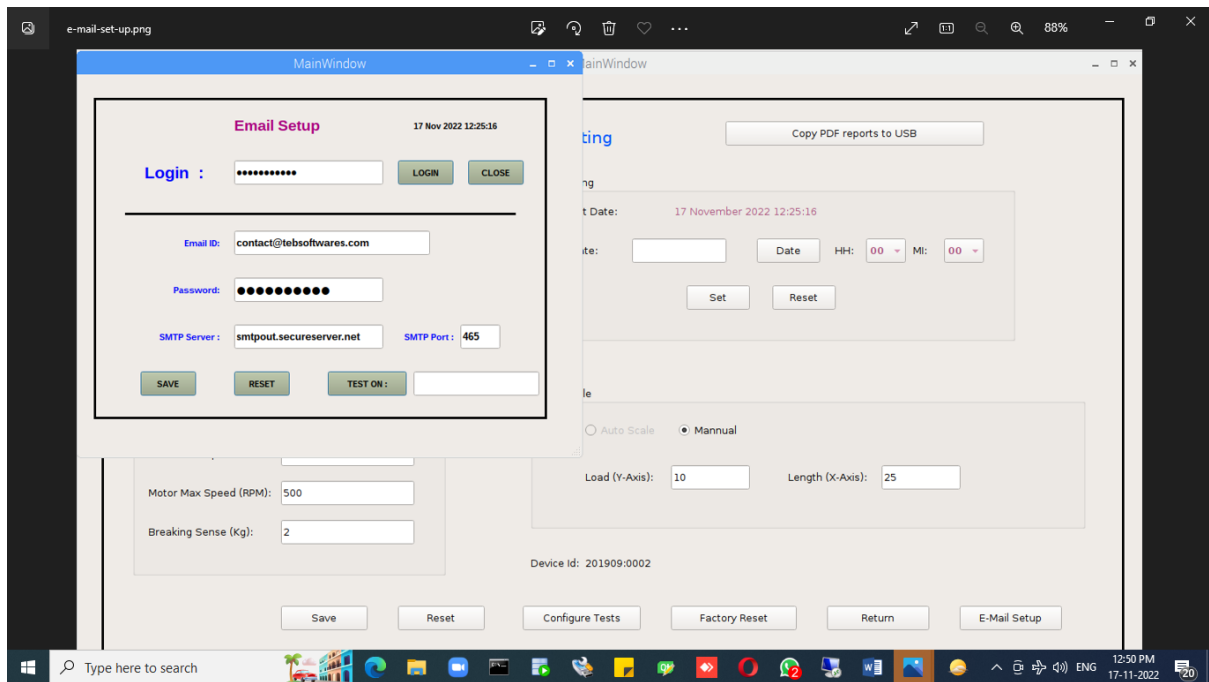
☐ Auto Scale ☒ Manual

Load (Y-Axis): 50000 Length (X-Axis): 25

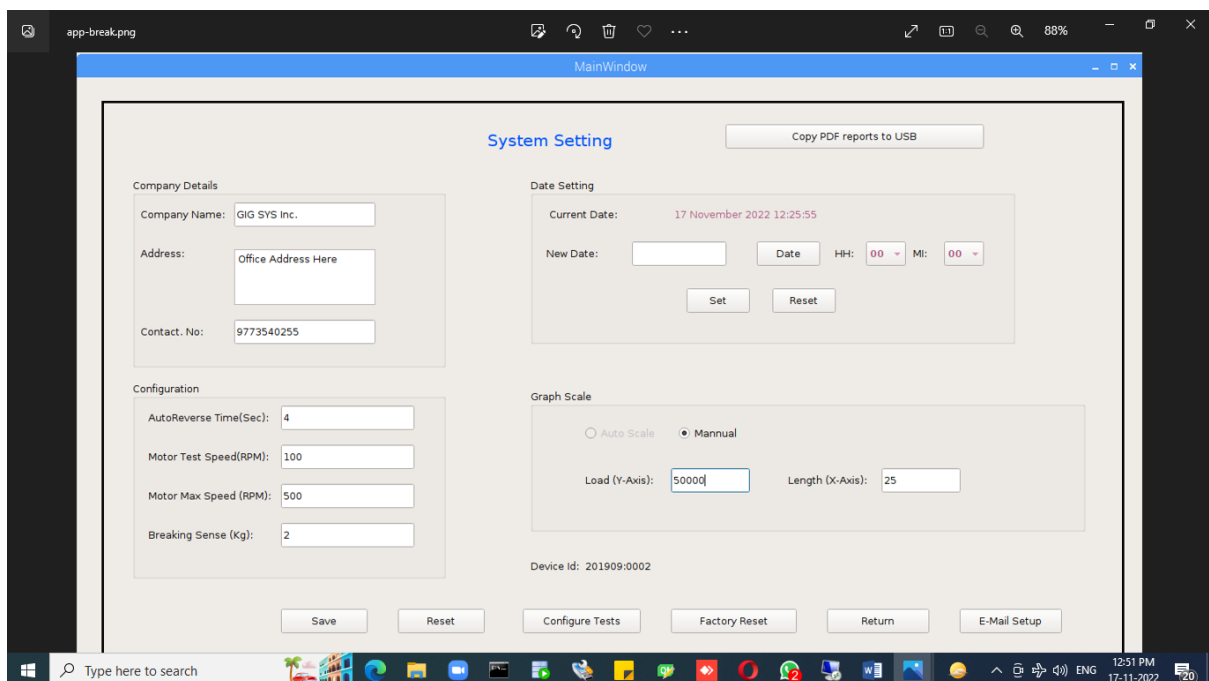
Device Id: 201909:0002

Save Reset Configure Tests Factory Reset Return E-Mail Setup

## Setup-Email:

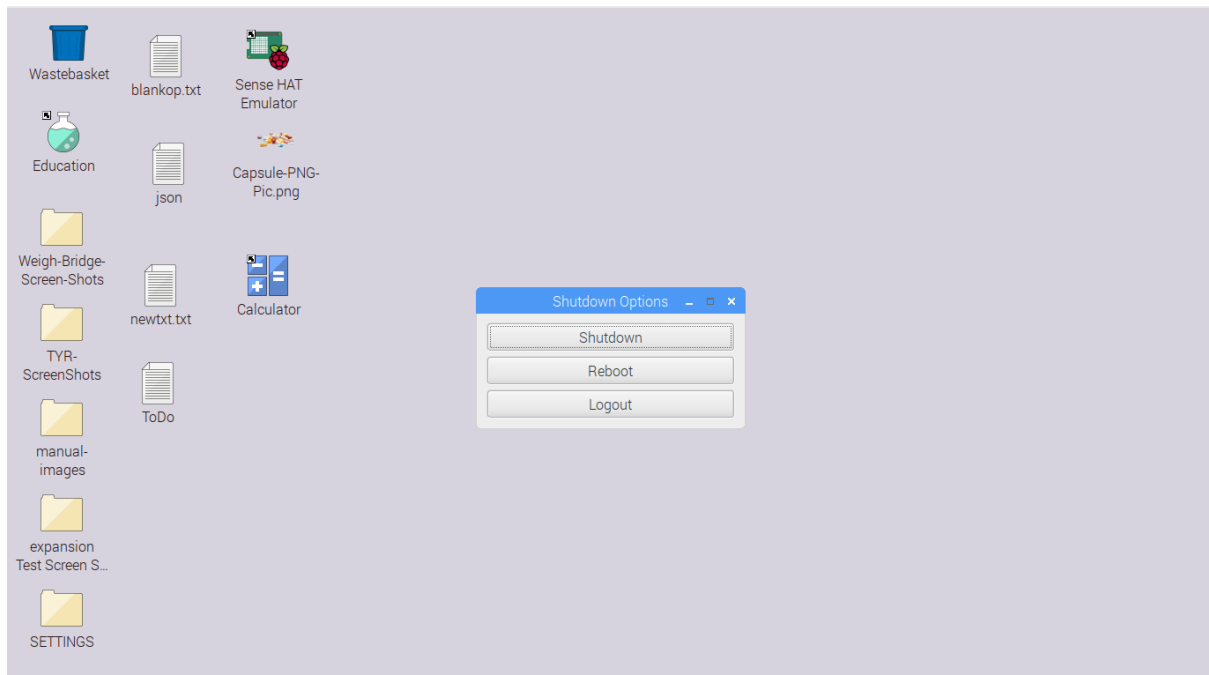


How to Break App:

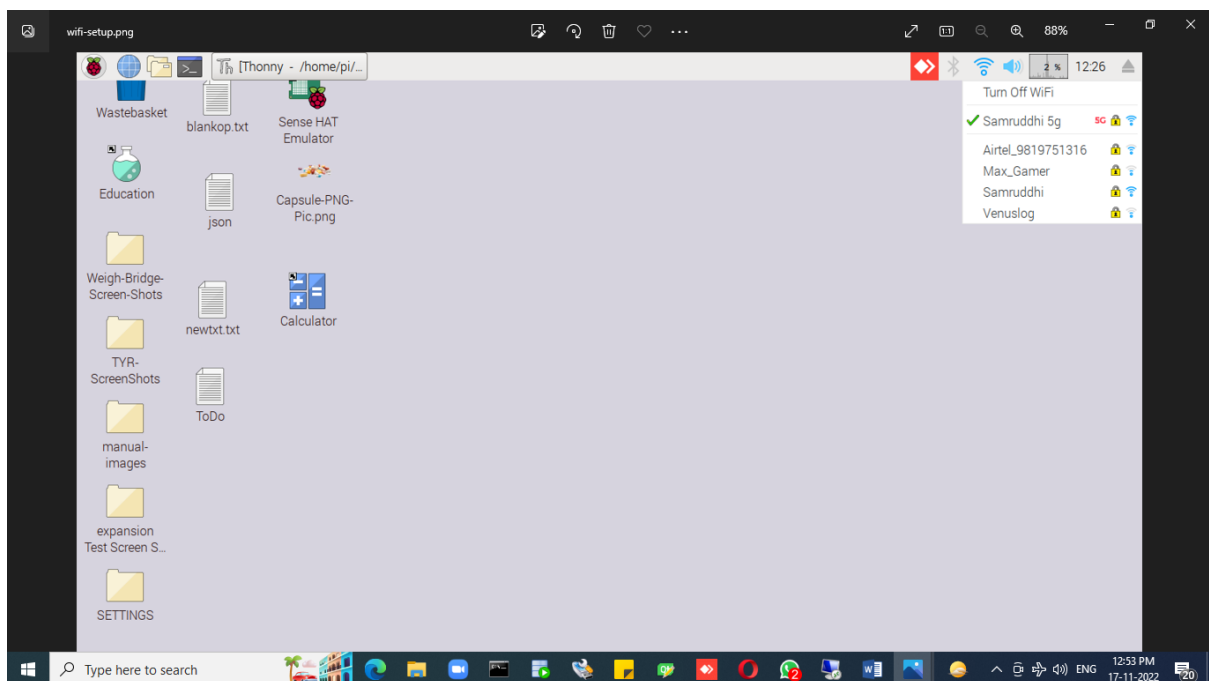


Click on “Config Test” button.

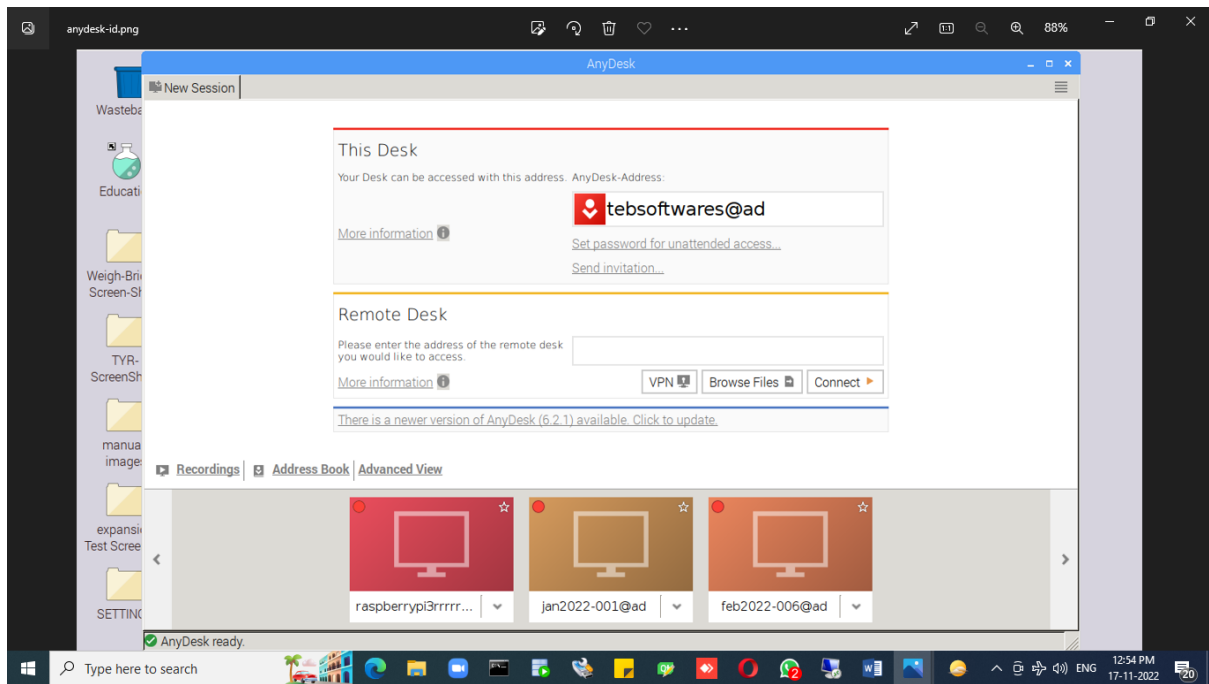
## Manual Reboot:



## Wifi setup:



## Anydesk Id:



7.CPU:



8.CONTROLER DEVICE:

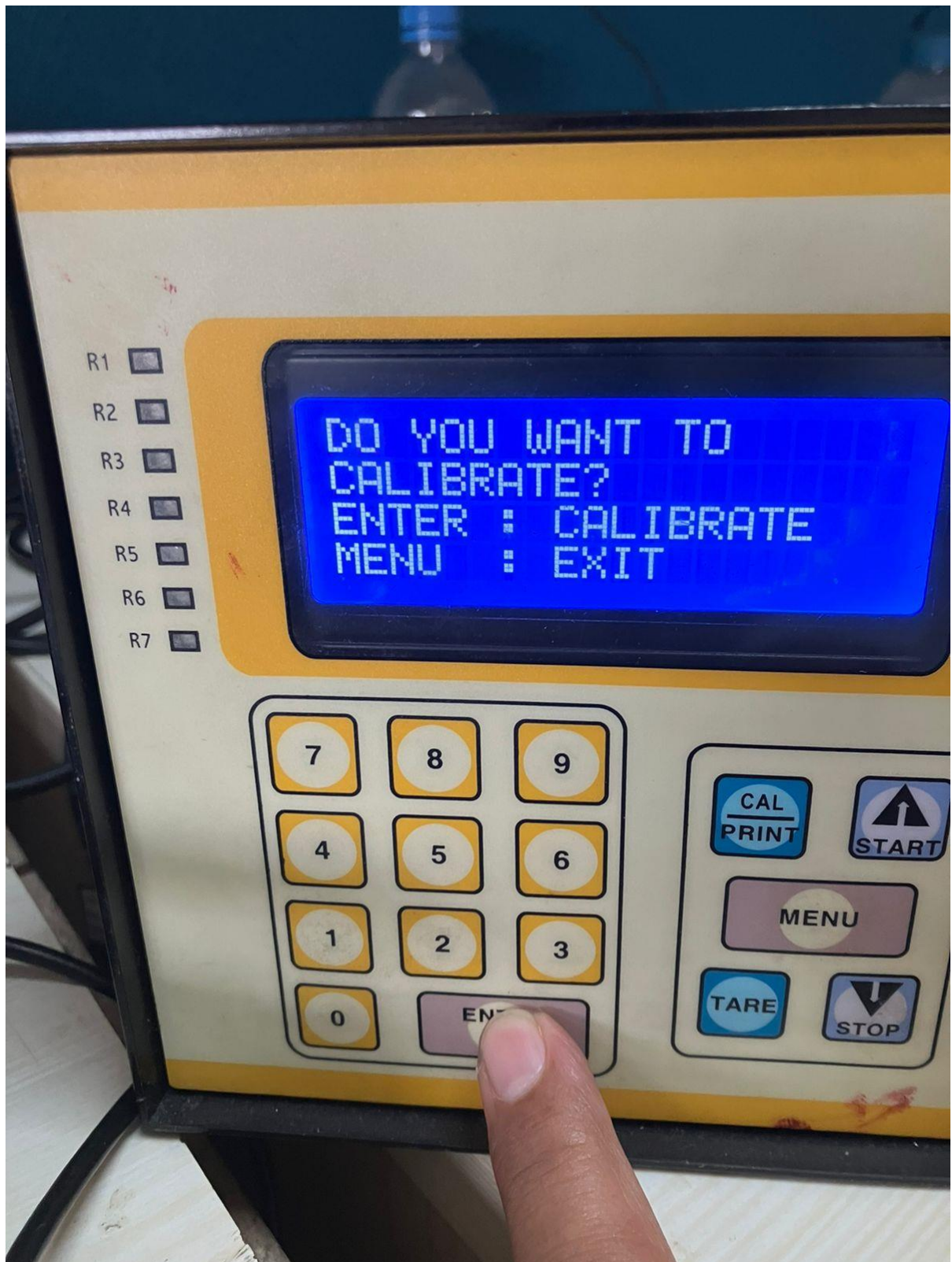


Hardware Connection Ports details:



## Load Calibration sensor:







SMART-1T

R1 ☐  
R2 ☐  
R3 ☐  
R4 ☐  
R5 ☐  
R6 ☐  
R7 ☐

R8 ☐  
R9 ☐  
R10 ☐  
R11 ☐  
R12 ☐  
R13 ☐  
R14 ☐

PASSWORD: 323



SMART-

PUT LOAD ON PLATFORM  
LOAD VALUE: 0100.0\_

☐ R  
☐ R1  
☐ R1  
☐ R13  
☐ R14



## EXPANSION TESTING MACHINE

### WIRING DETAILS.

LOAD CELL			
Ex+	Op+	Op-	Ex-

INPUT-1				

INPUT-2				
		O/P	-V	+V

Ex+ : Loadcell Positive Excitation  
Op+ : Loadcell Positive Output  
Op- : Loadcell Negative Output  
Ex- : Loadcell Negative Excitation

O/P: Extensometer output  
-V: Negative (Com) for Extensometer  
+V: Positive (+12V) voltage for Extensometer