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Version	Description of Change	Name	Date
1.0	Initial	Parul Vivek Sunder rao	21-09-2023
2.0	Updated as per doc# XYPP_29_VerP	Pandaraboyana, Dheeraj Kumar	25-09-2023
3.0	Revised as per final review	Nitin Khule	28-09-2023

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1 Subject

Test item: XY Pen Plotter, Doc: # XYPP_29

Report refers to Technical Specification doc: Group_29_Technical Specification.xlsb

A pen plotter, characterized as a computer-controlled apparatus employing pens or markers for creating precise and accurate drawings on paper, is the focus of this project. The goal is to develop a fully operational pen plotter by utilizing specific components and technologies that highlight the integration of hardware, software, and mechanical elements to accomplish a defined task.

This verification test report offers a comprehensive overview of the project, covering its background, design process, essential components and technologies, along with testing and performance evaluations. It makes reference to the technical specification, establishing the requirements slated for verification, and outlines the corresponding routines and procedures for verification, including the criteria and limits.

Within the contents of this report, a detailed exploration is undertaken of the specific tests carried out, their outcomes, and suggestions for further enhancements. Successful verification at the module level renders the product eligible for customer validation through a subsequent validation process.

Name:	Parul Vivek Sunder Rao	**Signature:**	Pandaraboyana, Dheeraj Kumar	**Signature:**
Function:	Testing Engineer		Manager Validation	
Dep.:	MERO_Validation	……	MERO_Validation	……
Date:		…		

2 Verification Report

Verification Report								
VerR #	**ref. to VerP #**	**Test function (to be copied from verification protocol)**	**verification criterion, the target value**	**Actual value**	**Criterion passed/failed**	**remark**	**ref. # (i.e. test report, etc)**	**Domain (HW/SW/ME/ALL)**
Application								
VerR1	VerP1	To draw Nikolaus Haus until failure or more than 10 times.	10 drawings without error	All the 20 houses are drawn correctly.	Passed		Group 29_Technical Specification.xlsb	ALL
General Functions								
VerR2	VerP2	To put the pen plotter into a box of 56x42x39 cm^3 provided by Uni Lab.	Fits in box with lid closed	Fits perfectly	Passed		Group 29_Technical Specification.xlsb	HW
VerR3	VerP3	To ensure that pen plotter assembly weighs less than 3.5 kgs.	Weight <= 3.5kg	2.8kg	Passed		Group 29_Technical Specification.xlsb	HW

Module Base Plate								
VerR9	VerP9	Align the plotter for accurate plotting within the maximum A4 size. Perform 10 test plot using an A4-sized drawing media.	Drawing media size = A4.	A4	Passed		Group 29_Technical Specification.xlsb	HW
Module Pen Holder / Carriage								
VerR10	VerP10	Maximum pen diameter used is less than or equal to 15mm	Diameter <=15mm	13mm	Passed		Group 29_Technical Specification.xlsb	ME
VerR11	VerP11	Determine the max. Permissible Drawing media thickness	Maximum thickness of drawing media >= 5mm.	3cm	Passed		Group 29_Technical Specification.xlsb	HW/ME
Module Coding, Control & User Interface								
VerR12	VerP12	Start, Calibrate (5x), Test Emergency Stop. Establish starting point, Align X and Y, Move to point, Check error.	Execute all the given tasks/functions.	All the functions were working properly.	Passed		Group 29_Technical Specification.xlsb	SW

Module Coding, Control & User Interface								
VerR13	VerP13	Check the real-time display of status of the machine for monitoring.	Ensure the display updates real-time status and working of emergency stop status, with clear visibility for effective monitoring.	Display shows the detailed status on OLED/LCD Display.	Passed		Group 29_Technical Specification.xlsb	HW

3 Final Evaluation

The verification has been passed successfully for all points.

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