



PapillArray Tactile Sensor Development Kit (v2.0)

Contents of the USB Flash drive

Document #: PTSDK_2.0_USBCONTENTS_NOV21

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Foreword

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1 Introduction

The PapillArray Tactile Sensor Development Kit (v2.0) is a system of (up to) two PapillArray Tactile Sensor arrays and a Controller. Each PapillArray Tactile Sensor array can measure 3D displacement, 3D force, and vibration on each sensing element, as well as global 3D force, global 3D torque, the onset of slip, and friction. The Controller supplies power for (up to) two sensors and coordinates the simultaneous data acquisition from up to two PapillArray Tactile Sensors; i.e., coordinates sampling of the 9 pillars if one sensor is connected to the Controller, 18 pillars if two sensors are connected to the Controller. The Development Kit is shipped with visualisation software and (optional) C++ libraries for Windows and Linux environments and a ROS node for developing software control algorithms using the sensor signals.

The main components of the PapillArray Tactile Sensor Development Kit (v2.0) are shown in Figure 1.1, connected to a laptop running the visualisation software.



Figure 1.1 – The PapillArray Tactile Sensor Development Kit (v2.0). Laptop not included.

This document describes the folders and files provided on the Contactile USB flash drive which was shipped with the development kit. The Contactile USB flash drive is shown in Figure 1.2.



Figure 1.2 – The Contactile USB flash drive

2 Contents of Contactile USB flash drive

2.1 Root folder

The contents of the USB flash drive are described in Table 2.1.

Table 2.1 – Files and folders in the root folder of the Contactile USB flash drive

Name	Type	Description
LEGAL	Folder	Conditions of Sale and End User Licence Agreement
MANUALS	Folder	Manuals and specifications for the PapillArray Tactile Sensor, Controller, Visualisation Software and C++ Library, ROS node, and Communications Protocol
SOFTWARE	Folder	Visualisation software, C++ Library (optional), and ROS node (optional)
PTSDK_2.0_USBCONTENTS_NOV21.pdf	File	This document

2.2 LEGAL folder

The LEGAL folder contains legal agreements including the conditions of sale of all products and the end user licence agreement that applies to all software and algorithms supplied with or on the products. A list of the files in this folder is shown in Table 2.3.

Table 2.2 – Contents of the Manuals folder

Name	Type	More Information
CONDITIONSOFSALE_20211028.pdf	File	Specifications for the PapillArray Tactile Sensor (2.0)
ENDUSERLICENCEAGREEMENT_20211028.pdf	File	Specifications for the PapillArray Tactile Sensor Controller (2.0)

2.3 MANUALS folder

The MANUALS folder contains all specifications and installation and operation manuals associated with the PapillArray Tactile Sensor Development Kit (2.0). A list of the files in this folder is shown in Table 2.3.

Table 2.3 – Contents of the Manuals folder

Name	Type	More Information
PTS_2.0_SPEC_NOV21.pdf	File	Specifications for the PapillArray Tactile Sensor (2.0)
PTSCTR_2.0_SPEC_NOV21.pdf	File	Specifications for the PapillArray Tactile Sensor Controller (2.0)
PTSDK_2.0_MAN_NOV21.pdf	File	Installation and operation manual for the development kit
PTSVIS_2.0_MAN_NOV21.pdf	File	Installation and operation manual for the PapillArray Tactile Sensor Visualisation Software (v2.0)
PTSC++WIN_2.0_MAN_NOV21.pdf	File	Installation and operation manual for the PapillArray Tactile Sensor C++ Library for Windows (v2.0)
PTSC++LIN_2.0_MAN_NOV21.pdf	File	Installation and operation manual for the PapillArray Tactile Sensor C++ Library for Linux (v2.0)
PTSROS_2.0_MAN_NOV21.pdf	File	Installation and operation manual for the PapillArray Tactile Sensor ROS node (v2.0)
PTSCOM_2.0_SPEC_NOV21.pdf	File	Specifications for the PapillArray Tactile Sensor Communications Protocol (v2.0)

2.4 SOFTWARE folder

The SOFTWARE folder contains all the software for the PapillArray Tactile Sensor Development Kit (v2.0). A list of the files in this folder is shown in **Error! Reference source not found..**

Table 2.4 – Contents of the Visualisation Software folder

Name	Type	More Information
VIS	Folder	Configuration file for PapillArray Tactile Sensor Visualisation Software (v2.0) – For more information, see Document # PTSVIS_2.0_MAN_NOV21
C++WIN (optional)	Folder	Library files for PapillArray Tactile Sensor C++ Library for Windows (v2.0) for streaming and logging sensor data in a user application – For more information, see Document # PTSC++WIN_2.0_MAN_NOV21
C++LIN (optional)	Folder	Library files for PapillArray Tactile Sensor C++ Library for Linux (v2.0) for streaming and logging sensor data in a user application – For more information, see Document # PTSC++LIN_2.0_MAN_NOV21
ROS (optional)	Folder	PapillArray Tactile Sensor ROS node (v2.0) for streaming and logging sensor data in a user application – For more information, see Document # PTSC++WIN_2.0_MAN_NOV21