



QUICK START

1 Power on

Put the kit on the floor on a stable and flat surface.
Install and plug the battery power connector on the rear side of the robot.
Press the white ON/OFF button on the side of the robot, nearby the Emergency Stop.

- i** The IPC and safety laser scanner lights turn on, and the kit starts booting for a few tens of seconds.
- i** To start safely, you can engage one of the Emergency Stops while the robot is powering ON.

2 Display and status

iMX6 version

Display of the 4 LEDs - when the embedded IPC is powered:

1	Power	●	The battery power is available
2	Devices	●	The connection to the SWD® and to the safety laser scanner is active
		✱	The connection cannot be established
3	ROS	●	The ROS environment is active
4	Wi-Fi	●	The Internet connection is established
		✱	The VPN connection is activated (only for support)

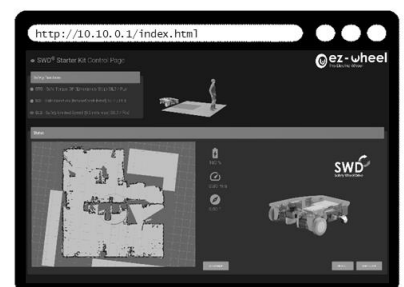
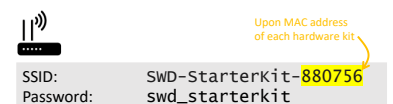
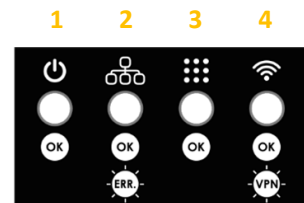
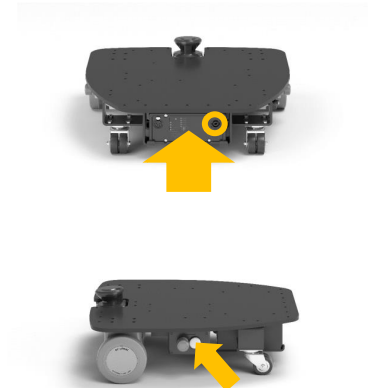
iMX8 version

		iMX8 ON
Power Led State	Yellow	✓

3 Connection to the web Control Page hosted on the embedded PC

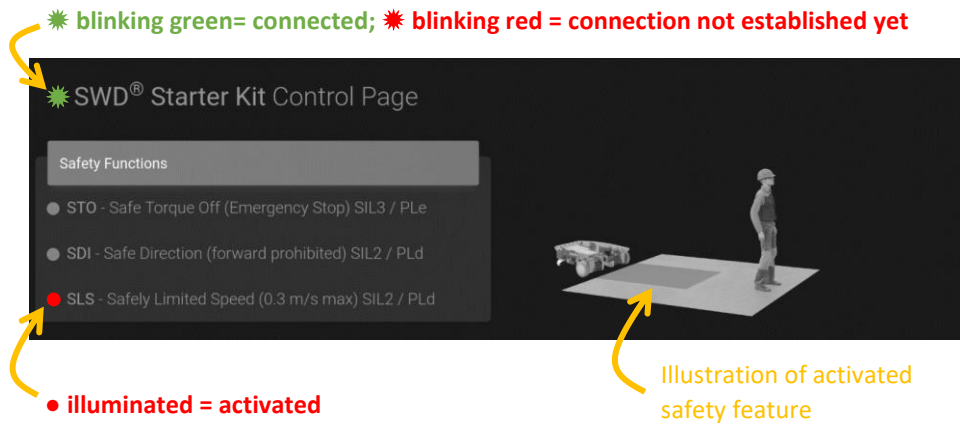
Connect a third-party device to the Starter Kit thanks to its own Wi-Fi access point

- i** SSID and initial password are indicated on the front plate beside the safety laser scanner or on the leaflet.
- i** Once a PC or tablet connected to the **SWD® Starter Kit** Wi-Fi access point, a web page is accessible with any navigator by typing the page's address: **http://10.10.0.1**.
- i** The **SLAM** algorithm used by default is **Hector Slam** available under **ROS Noetic**, but other algorithms such as **LaMa** or **Gmapping** could be used.



4 Safety features monitoring

- The page is used to check the status of the safety features set up with the **SWD®** safety drives and the safety laser scanner and shows an example of map built thanks to a ROS open-source SLAM algorithm using the data from the safety laser scanner.



STO	●	when one of the two Emergency Stops is engaged, the motors are stopped (Safe Torque Off)
SDI	●	when the safety laser scanner detects an obstacle in the short perimeter (<50cm), the motors cannot go forward (Safe Direction)
SLS	●	when the safety laser scanner detects an obstacle in the nearby perimeter (<1m), the robot cannot exceed 0,3 m/s (Safely Limited Speed)

5 Hand control for teleoperation (for demonstration)

- The wireless joystick is directly connected to the embedded IPC and allows a manual teleoperation of the machine.
- The **SWD® Starter Kit** uses standard ROS Noetic packages (using *joy* and *teleop_twist_joy*) providing interfaces with a standard console joystick.

To activate the hand controller, ROS packages must be started.

- The status of the ROS LED can be checked to confirm that ROS is active.
- Make sure you released the emergency buttons.
- If the motion control becomes jerky, then the joystick might be discharged. You should see joy's LEDs blinking.

