

e.DO Version 3.0.1 (20191104)

Release Notes

Versions related to Release Notes

Index	Date	Content	Versions comment
001	04/07/2018	Version 2.1.0 (20180626)	
002	03/08/2018	Version 2.1.1 (20180803)	
003	31/08/2018	Version 2.2.0 (20180831)	
004	27/11/2018	Version 2.2.1 (20181130)	
005	31/01/2019	Version 2.3.0 (20190131)	
006	02/03/2019	Version 2.3.1 (20190203)	
007	19/04/2019	Version 2.4.0 (20190419)	
008	01/07/2019	Version 2.5.0 (20190701)	
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1. Introduction

This document lists new implementations and solved problems in the e.DO software versions.

2. Version 3.0.1

Type	Number	Title	Description
Feature	4225	Desktop Apps for Windows and macOS	With this version the desktop version of the e.DO app is released. It is compatible with windows and macOS and has the same functionalities of the tablet version.
Defect	4296	Collision detection improvement in case of maximum payload	In case of maximum payload e.Do could occasionally trigger a false collision. The problem has been fixed.

3. Version 3.0.0

Type	Number	Title	Description
Feature	3580	Periodic brakes check	The system now will ask periodically to the user to start an automatic brake test procedure.
Feature	3834	Heartbeat check between e.DO robot and e.DO App	A connection check is now present between the e.DO and the e.DO App. If the connection drops e.DO activates the brakes and enter in safe mode.
Feature	3875	Check on current residual	Both raspberry and joints firmware compute the current residual and if they the value is too high the e.DO enters a safe state.
Feature	3961	QR code connection	To identify to which e.DO a tablet is connect is now suggested to use the QR code connection mode. It is also possible to insert the e.DO serial number to connect to the robot.
Feature	3975	Shutdown button inside the e.DO app	A shutdown button has been inserted inside the e.DO App.
Defect	3939	Handling of cartesian poses	The robot failed cartesian movement because the configuration flags (SWE) defining the pose of the robot where not used and always passed as null field. This problem has been fixed.

4. Version 2.5.0

Type	Number	Title	Description
Feature	3579	USB Software update	It will be possible to update the software with an USB key. This functionality will enable the upgrade of version 2.5.0 to a newer version (i.e 2.6.0).
Feature	3726	New unbrake procedure	In some condition the old procedure could cause collisions with the stroke end or the robot base. The new procedure considerably reduce these possibilities.
Feature	3765	T-Blocks plug-in	New T-Blocks plug-in that gives the possibility to create e.DO programs. The system is similar to that of Blockly but optimized to younger users. It is available with the educational license.

5. Version 2.4.0

Type	Number	Title	Description
Feature	2755	e.DO software now support a license to enable educational plug-ins	e.DO software can now handle a license that enables educational plug-ins.
Feature	2897	Remove all waypoints	It is possible to remove all waypoints with a single button
Feature	3247	Minum Android version	Minimum Android version is 6.0. Only devices with a screen of 7 inches or more are supported.
Defect	2641	Select where to save the a program	It is now possible to save the programs in a specific location.
Defect	2642	Edit text with empty value in jog page	If values in the fields of the jog page are left void a move to 0 position is made.
Defect	2742	Initial position for blockly program	The initial position for Blockly programs is now the current one.
Defect	2753	Edit with joystick	It is now possible to insert the position in Blockly using the joystick.

6. Version 2.3.1

Type	Number	Title	Description
Defect	3158	Auto-collision after calibration	In case of motion to HOME position after a calibration phase, auto-collision might occur.
Defect	3223	Axis 5 stroke end reduction	Axis 5 stroke end is now 103.5 degrees.
Defect	3224	Auto-collision during gripper cartesian movement	A possible auto-collision during the cartesian movement of the e.DO gripper has been solved.

7. Version 2.3.0

Type	Number	Title	Description
Feature	2635	Improved "About" page	"About" page has been improved. It now includes more clear information about the version number.
Feature	2713	Safety popup over all plugins	It has been added the safety popup over all plugins before the execution of an automatic movement.
Feature	2758	Improved calibration environment	It has been improved the usability of the calibration environment.
Feature	2795	Version check	New e.DO app verifies if the e.DO to which is connected has the same software version. If this is not the case it blocks the connection and suggests an upgrade.
Feature	2816	New collision detection handling	Collision detection strategy has been changed. Now e.DO will stop removing power from the motors and activating the brakes. It will not restart after a collision without an active action from the user.
Feature	2930	e.DO Safety Improvement	e.DO in safety condition whenever the CAN SIGNAL has been disconnected
Feature	3090	Plug-ins support	e.DO software version now includes an e.DO app where the following educational plug-ins are integrated: Curve, Point, Logistic, Pick.
Defect	2933	Improved Move in Fly	It has been improved the execution of the moves in fly mode.

8. Version 2.2.1

Type	Number	Title	Description
Feature	2333	e.DO App with Blockly plug-in	e.DO App integrates now Blockly plug-in which enables the user to program e.DO with a blocks based programming language.
Feature	2335	New axes initialization procedure	A new axes initialization procedure, more reliable and with an improved diagnostics, is released.
Feature	2566	Payload declaration in main page	In the main page it is now possible to choose the maximum payload in order to improve e.DO motion performance in that condition.
Feature	2645	Chinese Language support	e.DO App now supports the Chinese language
Feature	2687	Safety pop-ups prompted before automatic movements	A safety pop-up appears before safety movements.
Feature	2688	Safety pop-ups for adult supervision	A safety pop-up has been added for indicating that adult supervision is needed.
Feature	2782	Speed reduction upon e.DO Cartesian and Joint movements	e.DO maximum velocity has been reduced to be aligned with educational best practices.

9. Version 2.2.0

Type	Number	Title	Description
Feature	1988	Export and import of e.DO app programs	It is now possible to export and then import e.DO app programs.
Feature	2000	Program duration selection and execution time visualization	It is now possible to select the duration of programs and to visualize the execution time.
Feature	2171	Collision detection	e.DO is now able to detect collisions and to stop its movement with a controlled deceleration.

10. Version 2.1.1

Type	Number	Title	Description
Defect	1942	App version missing in the main page	Sometimes the app version was not shown in the main page. This problem is now fixed.
Defect	1959	Calibration on All joints in one step	It is now possible to calibrate all joint in a single step.
Defect	2162	Reset page management modified	The reset page is now accessible only with an explicit action.

11. Version 2.1.0

Type	Number	Title	Description
Feature	2008	Improved motion control	e.DO motion control is now more precise and fluid.
Feature	2239	e.DO gripper support	Is now possible to connect "e.DO gripper" to the 6 axis of the robot. e.DO system software can now handle the robot configuration with and without gripper.

Defect	1939	e.DO reaction time improvement during jog	e.DO has an improved reaction to the jog key press. Both motion start and stop are now improved.
Defect	1955	e.DO configuration page	A new configuration page has been created for the selection of the six-axis or six-axis e.DO with gripper. The 4-axis option has been temporarily removed.
Defect	2018	Hang of robot movement	A motion handling problem that randomly stopped the robot movement was fixed. This problem was often interpreted as a connection problem between the tablet and e.DO.
Defect	2113	Handling of program start and stop	In certain conditions, if a program is stopped, it cannot be restarted and the robot is stuck until a move to home is done. This was often interpreted as a communication problem.
Defect	2122	Axis 6 software stroke ends	Axis 6 stroke end software is now +/- 180 degrees
Defect	2154	Communication problem between e.DO and e.DO joints boards	A communication problem between joint boards and e.DO system software was solved. This problem caused a wide range of problems mainly during initialization and unbrake.