

Command	Return value	Description	Supported from version
load <program.urp>	On success: <ul style="list-style-type: none"> • "Loading program: <program.urp>" On Failure: <ul style="list-style-type: none"> • "File not found: <program.urp>" • "Error while loading program: <program.urp>" 	Returns when both program and associated installation has loaded (or failed). The load command fails if the associated installation requires confirmation of safety. The return value in this case will be 'Error while loading program'.	v1.4
play	On success: <ul style="list-style-type: none"> • "Starting program" On failure: <ul style="list-style-type: none"> • "Failed to execute: play" 	Returns failure if the program fails to start. In previous versions this did not happen in all cases.	v1.4
stop	On success: <ul style="list-style-type: none"> • "Stopped" On failure: <ul style="list-style-type: none"> • "Failed to execute: stop" 	Returns failure if the program fails to stop. In previous versions this did not happen in all cases..	v1.4
pause	On success: <ul style="list-style-type: none"> • "Pausing program" On failure: <ul style="list-style-type: none"> • "Failed to execute: pause" 	Returns failure if the program fails to pause. In previous versions this did not happen in all cases.	v1.4
quit	"Disconnected"	Closes connection	v1.4
shutdown	"Shutting down"	Shuts down and turns off robot and controller	v1.4
running	"Program running: True" OR "Program running: False"	Execution state enquiry	v1.6

Command	Return value	Description	Supported from version
robotmode	CB2: integer is returned <ul style="list-style-type: none"> • NO_CONTROLLER_MODE = -1 • ROBOT_RUNNING_MODE = 0 (This is "normal" mode) • ROBOT_FREEDRIVE_MODE = 1 • ROBOT_READY_MODE = 2 • ROBOT_INITIALIZING_MODE = 3 • ROBOT_SECURITY_STOPPED_MODE = 4 • ROBOT_EMERGENCY_STOPPED_MODE = 5 • ROBOT_FAULT_MODE = 6 • ROBOT_NO_POWER_MODE = 7 • ROBOT_NOT_CONNECTED_MODE = 8 • ROBOT_SHUTDOWN_MODE = 9 CB3: text is returned "Robotmode: <mode>", where <mode> is <ul style="list-style-type: none"> • NO_CONTROLLER • DISCONNECTED • CONFIRM_SAFETY • BOOTING • POWER_OFF • POWER_ON • IDLE • BACKDRIVE • RUNNING 	Robot mode enquiry	v1.6
get loaded program	"Loaded program: <path to loaded program file>" OR "No program loaded"	Which program is loaded	v1.6
popup <popup-text>	"showing popup"	The popup-text will be translated to the selected language, if the text exists in the language file	v1.6
close popup	"closing popup"	Closes the popup	v1.6

Command	Return value	Description	Supported from version
addToLog <log-message>	"Added log message" Or "No log message to add"	Adds log-message to the Log history	v1.8
isProgramSaved	"True" OR "False"	Returns the save state of the active program and path to loaded program file.	v1.8
programState	"STOPPED" if no program is running "PLAYING" if program is running "PAUSED" if program is paused(CB3/CB3.1 only)	Returns the state of the active program and path to loaded program file, or STOPPED if no program is loaded	v1.8
PolyscopeVersion	version number, like "3.0.15547"	Returns the version of the Polyscope software	v1.8
setUserRole <role> where <role> can be: programmer operator none locked	"Setting user role: <role>" OR "Failed setting user role: <role>" <ul style="list-style-type: none"> <i>programmer</i> = In Setup Robot, buttons "Update", "Set Password", "Network", "Time" and "URCaps" are disabled, "Expert Mode" is available (if correct password is supplied) <i>operator</i> = Only "RUN Program" and "SHUTDOWN Robot" buttons are enabled, "Expert Mode" cannot be activated <i>none</i> (or send <i>setUserRole</i>) = All buttons enabled, "Expert Mode" is available (if correct password is supplied) <i>locked</i> = All buttons disabled and "Expert Mode" cannot be activated 	Control of user privileges: controls the available options on the Welcome screen. Note: If the Welcome screen is not active when the command is sent, the user privileges defined by the new user role will not be effective until the user switches to the Welcome screen.	v1.8
setUserRole <role> extended with new role: restricted	"Restricted" works like "operator" but does not give access to the move tab.		v3.1

Command	Return value	Description	Supported from version
getUserRole	PROGRAMMER, OPERATOR, NONE, LOCKED or RESTRICTED	Returns the user role	
power on	"Powering on"	Powers on the robot arm	v3.0
power off	"Powering off"	Powers off the robot arm	v3.0
brake release	"Brake releasing"	Releases the brakes	v3.0
safetymode	"Safetymode: <mode>", where <mode> is <ul style="list-style-type: none"> • NORMAL • REDUCED • PROTECTIVE_STOP • RECOVERY • SAFEGUARD_STOP • SYSTEM_EMERGENCY_STOP • ROBOT_EMERGENCY_STOP • VIOLATION • FAULT 	Safety mode enquiry	v3.0
unlock protective stop	On success: <ul style="list-style-type: none"> • "Protective stop releasing" On failure: <ul style="list-style-type: none"> • "Cannot unlock protective stop until 5s after occurrence. Always inspect cause of protective stop before unlocking" 	Closes the current popup and unlocks protective stop The unlock protective stop command fails if less than 5 seconds has passed since the protective stop occurred.	v3.1
close safety popup	"closing safety popup"	Closes a safety popup	v3.1

Command	Return value	Description	Supported from version
load installation <default.installation>	On success: <ul style="list-style-type: none"> • "Loading installation: <default.installation>" On failure: <ul style="list-style-type: none"> • "File not found: <default.installation>" • "Failed to load installation: <default.installation>" 	Loads the specified installation file but does not return until the load has completed (or failed). The load command fails if the associated installation requires confirmation of safety. The return value will be 'Failed to load installation'.	v3.2
restart safety	Restarting safety	Used when robot gets a safety fault or violation to restart the safety. After safety has been rebooted the robot will be in Power Off. <u>IMPORTANT:</u> You should always ensure it is okay to restart the system. It is highly recommended to check the error log before using this command (either via PolyScope or e.g. ssh connection).	v3.7
get serial number	Serial number like "2017351234"	Returns serial number of the robot.	v3.12
get robot model	UR3, UR5, UR10	Returns the robot model	v3.12
generate flight report <report type> where possible report types are: controller software system Default Type is 'system' if no option is specified	On success report id is printed. Error Message on a failure. Command can take few minutes to complete.	Triggers a Flight Report of the following type: Controller - report with information specific for diagnosing controller errors. For example, in case of protective stops, faults or violations. Software - report with information specific for polyscope software failures. System - report with information about robot configuration, programs, installations etc. It is required to wait at least 30 seconds between triggering software or controller reports.	v3.13

Command	Return value	Description	Supported from version
<p>generate support file <Directory path></p> <p>where <Directory path> represents path to an already existing directory location inside the programs directory.</p> <p>In particular path can point to special usbdisk subfolders inside programs folder.</p>	<p>On success "Completed successfully: <result file name>" is printed otherwise an error message with possible cause of the error is shown.</p> <p>Command can take up to 10 minutes to complete.</p>	<p>Generates a flight report of the type "System" and creates a compressed collection of all the existing flight reports on the robot along with the generated flight report.</p> <p>Result file <i>ur_[robot serial number]_YYYY-MM-DD_HH-MM-SS.zip</i> is saved inside <Directory path></p>	<p>v3.13</p>