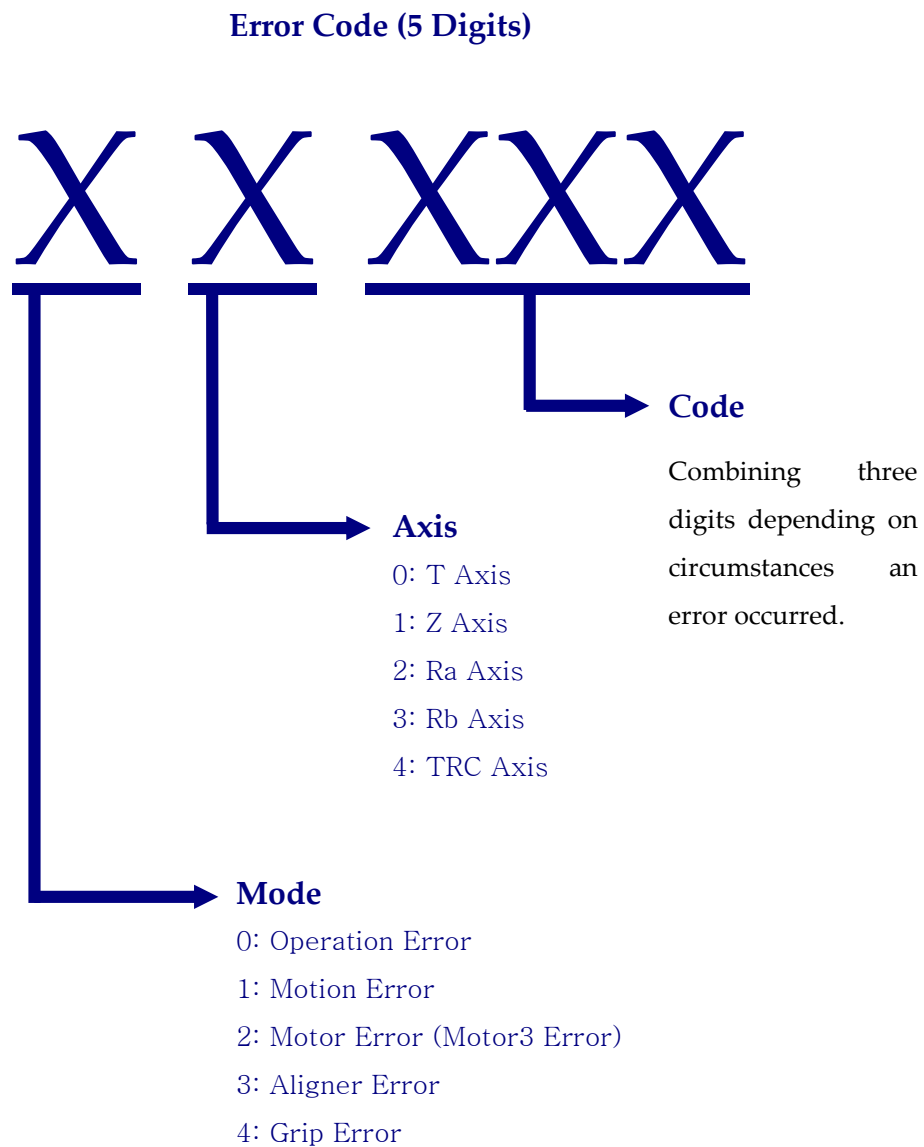


## Error Code

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The Error Code is composed of 5 digits numbers and a structure of each digit is as follows. The first digit indicates location an error occurred with three modes, the second digit indicate axis an error occurred and the rest three digits are indicated in combination of three digits depending on circumstances an error occurred. .



## Error Code Description

X is a number by axis (0: T-Axis, 1: Z-Axis, 2: Ra-Axis, 3: Rb-Axis)

Mode	Code	Description
Operation	0x001	Liveman Error
	0x002	There is no wafer
	0x003	There is a wafer
	0x004	Check Operation Mode
	0x005	Home all is not done
	0x006	Controller is not ready
	0x007	Station or slot number is wrong
	0x008	Command is not correct
	0x009	E-Stop/User IO is disconnected
	0x010	Station is not match with arm
	0x011	Goto is not do after arm changed
	0x012	Error is not Cleared
	0x100	BoardInitialize is failed, Reboot Robot Controller
	0x101	Host COM was not Initialized
	0x102	TP COM was not Initialized
	0x103	Check CDA Pressure
	0x104	Aligner was not Initialized
	0x160	Controller Fan Fault
	0x180	EQ Door State Error (EQ1, EQ2)
	0x181	EQ Door State Error (EQ1)
	0x182	EQ Door State Error (EQ2)
	0x183	EQ Door Moving (EQ1, EQ2)
	0x184	EQ Door Moving (EQ1)
	0x185	EQ Door Moving (EQ2)
	0x200	AbsEnclInitialize is failed, Reboot Robot Controller
	0x300	MotSetEnclInputMethod is failed, Reboot Robot Controller
	0x400	InitAbsEncoder is failed, Reboot Robot Controller
	0x500	InitAbsChannel is failed, Reboot Robot Controller
Motion	1x001	RA is not retracted
	1x002	RB is not retracted
	1x005	Check extend interlock
	1x009	Check sensor signal
	1x010	Drive is not Enabled
	1x012	Error Clear is failed

Motor	2x100	Motor Power On is failed	
	2x101	Over Time Error	
	2x102	Check Reference Position	
	2x103	Check Current Position	
	2x104	Motor Power is not On	
	2x105	Check Extend Interlock IO	
	2x106	Check Wafer Presence	
	2x107	Check Current Position & Encoder value	
	2x108	Home Define is failed, Check serial cable with drive	
Grip	4x100	Gripper is not Move to UnGrip position	
	4x101	Gripper is not Move to Grip position	
	4x106	Check Wafer Presence	
	4x109	Check Grip Status	
	4x130	Place Moving Check Wafer Present	
	4x131	Place Done Check Wafer	
	4x132	Place Pre-Check - Check Wafer Present	
	4x140	Pick Moving Check Wafer Present	
	4x141	Pick Done Check Wafer	
	4x142	Pick Pre-Check - Check Wafer Present	
	4x200	Check Wafer Error : Pick Start	
	4x201	Check Wafer Error : Pick Extend	
	4x202	Check Wafer Error : Pick Retract	
	4x210	Check Wafer Error : Place Start	
	4x211	Check Wafer Error : Place Extend	
	4x212	Check Wafer Error : Place Retract	
	4x400	UnGrip Fail : Check Sensor Please	
	4x401	Grip Fail : Check Sensor Please	
Mode	Code	Sub	Description
Motor3 (Driver)	2x000	-	Check Motion board connection with drive
	2x011	0	Control power supply under - Voltage Protection
	2x012	0	Over-Voltage Protection
	2x013	0	Main Power supply under-voltage Protection (between P and N)
		1	Main Power supply under-voltage Protection (AC intereption detection)
	2x014	0	Over-current protection
		1	IPM(Intelligent Power Module) error protection
	2x015	0	Over-heat protection
		1	Encoders abnormal overheat protection

Motor3 (Driver)	2x016	0	Over-load protection
		1	Torque saturation error protection
	2x018	0	Over-regeneration load protection
		1	Regeneration Tr error protecton
	2x021	0	Encoder communication disconnect error protection
		1	Encoder communication error protection
	2x023	0	Encoder communication data error protection
	2x024	0	Position deviation excess protection
		1	Velocity deviation excess protection
	2x025	0	Hybrid deviation excess error protection
	2x026	0	Over-speed protection
		1	2nd over-speed protection
	2x027	0	Command pulse input frequency error protection
		1	Absolute clear abnormal protection
		2	Command pulse multiplier error protection
	2x028	0	Limit of pulse replay error protection
	2x029	0	Deviation counter overflow abnormality protection
		1	Counter overflow protection 1
		2	Deviation counter overflow abnormality protection 2
	2x030	0	Safety input protection
	2x031	0	Safety function error protection 1
		2	Safety function error protection 2
	2x033	0	IF overlaps allocation error 1 protection
		1	IF overlaps allocation error 2 protection
		2	IF input function number error 1 protection
		3	IF input function number error 2 protection
		4	IF output function number error 1 protection
		5	IF output function number error 2 protection
		6	CL fitting error protection
		7	INH fitting error protection
	2x034	0	Software limit protection
	2x036	0 to 2	EEPROM parameter error protection
	2x037	0 to 2	EEPROM check code error protection
	2x038	0	Drive prohibition input protection
	2x039	0	Analog input1 excess protection
		1	Analog input2 excess protection
		2	Analog input3 excess protection
	2x040	0	Absolute system down error protection

Motor3 (Driver)	2x041	0	Absolute counter over error protection
	2x042	0	Absolute over-speed error protection
	2x043	0	Encoder initialization error protection
	2x044	0	Absolute single turn counter error protection
	2x045	0	Absolute multi-turn counter error protection
	2x047	0	Absolute status error protection
	2x048	0	Increment encoder Z-phase error protection
	2x049	0	Increment encoder CS-phase error protection
	2x050	0	External scale connection error protection
		1	External scale communication error protection
	2x051	0	External scale status 0 error protection
		1	External scale status 1 error protection
		2	External scale status 2 error protection
		3	External scale status 3 error protection
		4	External scale status 4 error protection
		5	External scale status 5 error protection
	2x055	0	A-phase connection error protection
		1	B-phase connection error protection
		2	Z-phase connection error protection
	2x070	0	U-phase current detector error protection
		1	W-phase current detector error protection
	2x072	0	Thermal protector error
	2x080	0	Modbus communication timeout protection
	2x087	0	Compulsory alarm input protection
	2x092	0	Encoder data recovery abnormal protection
		1	External scale data recovery error protection
		3	Multi-turn data upper-limit value disagreement error protection
	2x093	0	Parameter setup error protection 1
		1	Block data setting error protection
		2	Parameter setup error protection 2
		3	External scale connection error protection
		8	Parameter setup error protection 6
	2x094	0	Block operation error protection
		2	Return to origin error protection
	2x095	0 to 4	Motor automatic recognition error protection
	2x097	0	Control mode setting error protection

**& Note:** As program closes if Operation Error 00100, 00200, 00300, 00400, 00500 occurs, Error will be released if a controller OFF -> ON is done.