

Command	Code(dec)	Code(hex)	Description	Request	Response	Pull/Push
Forward	0	0x00	Moves robot forward when manually controlled	0x00+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Backward	1	0x01	Moves robot forward when manually controlled	0x01+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Turn Left	2	0x02	Rotates the robot left when manually controlled	0x02+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Turn Right	3	0x03	Rotates the robot right when manually controlled	0x03+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Curve Forward Left	4	0x04	Curves the robot to the left while moving forward	0x04+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Curve Backward Left	5	0x05	Curves the robot to the left while moving backward	0x05+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Curve Forward Right	6	0x06	Curves the robot to the right while moving forward	0x06+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Curve Backward Right	7	0x07	Curves the robot to the left while moving forward	0x07+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Increase Speed	8	0x08	Increases speed of the robot	0x08+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Decrease Speed	9	0x09	Decreases speed of the robot	0x09+Time Stamp+Check-sum (6 Byte Length)?	None	Pull
Dig	10	0x0A	Commands the robot to start a dig cycle	WIP	None	Pull
Dump	11	0x0B	Commands the robot to start a dump cycle	WIP	None	Pull
Stop Movement	12	0x0C	Stop the robot	0x0C (1 Byte Length)	None	Pull
Resume	238	0xEF	Request to resume autonomous operations	0xEF (1 Byte Length)	0xEF (1 Byte Length)	Pull
Start	239	0xF0	Request to start all operations	0xF0 (1 Byte Length)	0xF0 (1 Byte Length)	Pull
Stop	240	0xF1	Request to stop all operations	0xF1 (1 Byte Length)	0xF1 (1 Byte Length)	Pull
Manual Control	241	0xF2	Request to take manual control	0xF2 (1 Byte Length)	0xF2 (1 Byte Length)	Pull
Position X	242	0xF3	Request current X position of the robot	0xF3 (1 Byte Length)	0xF3+X position+Check-Sum (6 Byte Length)?	Pull

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Position Y	243	0xF4	Request current Y position of the robot	0xF4 (1 Byte Length)	0xF4+Y position+Check-sum (6 Byte Length)?	Pull
LRF Range	244	0xF5	Request the current range the LRF is reading	0xF5 (1 Byte Length)	0xF5+Range+Check-sum (Unknown Byte Length)	Pull
Camera Servo Pos	245	0xF6	Request the current set pos for the camera servo	0xF6 (1 Byte Length)	0xF6+Servo Pos+Check-sum (3 Byte Length)	Pull
Bump Sensors	246	0xF7	Request the current state of the bump sensors (hit or not hit)	0xF7 (1 Byte Length)	0xF7+Sensor Info+Check-sum (3 Byte Length)	Push/Pull
Track Speed	247	0xF8	Request the current speed of the tracks	0xF8 (1 Byte Length)	0xF8+L Track Speed+R Track Speed+Check sum (4 Byte Length)	Pull
Arm Motor 1 Rot	248	0xF9	Request the current number of rotations the arm 1 <sup>st</sup> motor have preformed	0xF9 (1 Byte Length)	0xF9+Rot+Check-Sum (4 Byte Length)	Pull
Arm Motor 2 Rot	249	0xFA	Request the current number of rotations the arm 2 <sup>nd</sup> motor have preformed	0xFA (1 Byte Length)	0xFA+Rot+Check-Sum (4 Byte Length)	Pull
Arm Motor 3 Rot	250	0xFB	Request the current number of rotations the arm 3 <sup>rd</sup> motor have preformed	0xFB (1 Byte Length)	0xFB+Rot+Check-Sum (4 Byte Length)	Pull
Arm Motor 4 Rot	251	0xFC	Request the current number of rotations the arm 4 <sup>th</sup> motor have preformed	0xFC (1 Byte Length)	0xFC+Rot+Check-sum (4 Byte Length)	Pull
Battery Level	252	0xFD	Request current battery level	0xFD (1 Byte Length)	0xFD+Battery Level+Check-sum (4 Byte Length)	Pull
Response	253	0xFE	Echo to Ping Command	0xFF (1 Byte Length)	0xFE (1 Byte Length)	N/A
Ping	254	0xFF	Requests ip address of server	0xFF (1 Byte Length)	0xFE (1 Byte Length)	Pull