Zombietron Robot Controller Data Sheet

Command Protocol

The protocol for sending Bluetooth commands to the Android Robot Controller consist of a command character followed by a comma delimited list of two parameters and a trailing comma. Each character in the command text must be converted to its ascii byte value and sent via Bluetooth to the Android Robot Controller. Commands can be concatenated into one compound text command to send multiple commands simultaneously. The second parameter for most commands is a "do not care value" and is a dummy placeholder value that is not used except for the "a" command.

Command Structure

Command Character, *parameter 1 value*, *parameter 2 value*, (ex. e180,0,)

Multiple commands to Servos A4, D4 & D6 example: m57,0,f90,0,e45,0,

Pin Mapping

Pin Label	Description	Command	Comments
NC	No Connection		
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A0	Analog Input Port 2	m0,0,	Returns current analog port value in the following format: A,(0 - 1024)
A2	IR LED Transmitter	o0,0,	DIGITAL IR Transmitter Module output pin (such as DFRobot – DFR0095 part). Send Hex value b3e2cb07 in IR message output
A4	Servo Motor Output	g(0 - 180),0,	Servo command parameter range is 0 to 180
D2	IR Receiver sensor input		If an IR receiver such at the DFRobot Digital IR Receiver Module (DFR0094)

			or Sparkfun IR Receiver Diode (SEN-10266) is connected to this pin the IR value received is written to the Bluetooth serial output in the following format: I, (Hex value)
D4	Servo Motor Output	f(0 - 180),0,	Servo command parameter range is 0 to 180
D6	Servo Motor Output	e(0 - 180),0,	""

Pin Label	IR Remote Button /Description	IR Command Hex value	Comments
D6	Right Curser (Head Right)	c837d827	decrease by 10
D6	Left Curser (Head Left)	c837f807	increase by 10
D6	Enter (Head Center)	c837c8b7	center
D4	Ch + (Right Arm Down)	c837c03f	increase by 10
D4	Ch - (Right Arm Down)	c837e01f	decrease by 10
D4	Up Curser (Right Arm Center)	c837c0bf	center
A4	Vol + (Left Arm Up)	c837d02f	decrease by 10
A4	Vol - (Left Arm Down)	c837f00f	increase by 10
A4	Curser Down - (Left Arm Center)	c837e09f	center

Additional Commands

z0,0, → Print current software version/info to Bluetooth serial output