

NAME	VALUE	DESCRIPTION
HEADER	2 bytes	Exactly in order 0xFA (250), 0xFB (251)
BYTE COUNT	byte	Number of data bytes + 2 (checksum), not including header or byte-count bytes
TYPE	0x3s	Motors status; s = 2 when motors stopped or 3 when robot moving.
XPOS	int	Wheel-encoder integrated coordinates in millimeters (DistConvFactor‡ = 1.0).
YPOS	int	
THPOS	int	Orientation in degrees (AngleConvFactor‡ = 1.0).
L VEL	int	Wheel velocities in millimeters per second (VelConvFactor‡ = 1.0)
R VEL	int	
BATTERY	byte	Battery charge in tenths of volts (101 = 10.1 volts, for example)
STALL AND BUMPERS	uint‡	Motor stall and bumper indicators. Bit 0 is the left wheel stall indicator, set to 1 if stalled. Bits 1-7 correspond to the first bumper I/O digital input states (accessory dependent). Bit 8 is the right wheel stall, and bits 9-15 correspond the second bumper I/O states, also accessory and application dependent.
CONTROL	int	Setpoint of the server’s angular position servo in degrees
FLAGS	uint	Bit 0 motors status; bits 1-4 sonar array status; bits 5,6 STOP; bits 7,8 ledge-sense IRs; bit 9 joystick fire button; bit 10 auto —charger power-good.
COMPASS	byte	Electronic compass accessory heading in 2-degree units
SONAR COUNT	byte	Number of new sonar readings included in SIP
NUMBER	byte	If Sonar Count>0, is sonar disc number 0-31; readings follow
RANGE	uint	Corrected sonar range value in millimeters (RangeConvFactor‡ = 1.0)
...REST OF THE SONAR READINGS...		
GRIP_STATE	byte	Gripper state byte.
ANPORT	byte	Selected analog port number 1-5
ANALOG	byte	User Analog input (0-255=0-5 VDC) reading on selected port
DIGIN	byte	Byte-encoded User I/O digital input
DIGOUT	byte	Byte-encoded User I/O digital output