2018 Legacy Protocol

Byte / bit		7	6	5	4	3	2	1	0
Head	0	Package Type				Robot 1 Exist?	Robot 2 Exist?	Robot 3 Exist?	Robot 4 Exist?
Robot1 Config	1	Report?	Shoot:0 Chip:1	Dribble Strength (0-3)		Robot_1_Number			
	2	0:+ 1:-	Speed Vx Unit: 1cm/s						
	3	0:+ 1:-	Speed Vy Unit: 1cm/s						
	4	0:+ 1:-	Rotation Speed ω Unit: 1/40 rad/s						
Robot2 Config	5	Report?	Shoot:0 Chip:1	Dribble Strength (0-3)		Robot_2_Number			
	6	0:+ 1:-	Speed Vx Unit: 1cm/s						
	7	0:+ 1:-	Speed Vy Unit: 1cm/s						
	8	0:+ 1:-	Rotation Speed ω Unit: 1/40 rad/s						
Robot3 Config	9	Report?	Shoot:0 Chip:1	Dribble Strength (0-3)		Robot_3_Number			
	10	0:+ 1:-	Speed Vx Unit: 1cm/s						
	11	0:+ 1:-	Speed Vy Unit: 1cm/s						
	12	0:+ 1:-	Rotation Speed ω Unit: 1/40 rad/s						
Robot4 Config	13	Report?	Shoot:0 Chip:1	Dribble Strength (0-3)		Robot_4_Number			
	14	0:+ 1:-	Speed Vx Unit: 1cm/s						
	15	0:+ 1:-	Speed Vy Unit: 1cm/s						
	16	0:+ 1:-	Rotation Speed ω Unit: 1/40 rad/s						
High 2 Bits Speed	17	R1_Vx8	R1_Vx7	R1_Vy8	R1_Vy7	R1_Vr10	R1_Vr9	R1_Vr8	R1_Vr7
	18	R2_Vx8	R2_Vx7	R2_Vy8	R2_Vy7	R2_Vr10	R2_Vr9	R2_Vr8	R2_Vr7
	19	R3_Vx8	R3_Vx7	R3_Vy8	R3_Vy7	R3_Vr10	R3_Vr9	R3_Vr8	R3_Vr7
	20	R4_Vx8	R4_Vx7	R4_Vy8	R4_Vy7	R4_Vr10	R4_Vr9	R4_Vr8	R4_Vr7
Shoot Chip Power	21	TX_Freq_bit0	R1_pow6	R1_pow5	R1_pow4	R1_pow3	R1_pow2	R1_pow1	R1_pow0
	22	TX_Freq_bit1	R2_pow6	R2_pow5	R2_pow4	R2_pow3	R2_pow2	R2_pow1	R2_pow0
	23	TX_Freq_bit2	R3_pow6	R3_pow5	R3_pow4	R3_pow3	R3_pow2	R3_pow1	R3_pow0
	24	TX_Freq_bit3	R4_pow6	R4_pow5	R4_pow4	R4_pow3	R4_pow2	R4_pow1	R4_pow0

Package Type	Value
2018 Legacy Protocol	4 0x0100

Example:
4F 12 34 30 08 00 02 40 00 08 02 60 00 08 00 50 00 08 00 00 00 00 32 32 32
4F 12 34 30 58 00 02 40 00 08 02 60 00 08 00 50 00 08 00 00 00 00 32 32 32

TX_Freq_bit 0-3 Represents the Report Package Frequency

Transmitter Config Package

Byte / bit		7	6	5	4	3	2	1	0
Head	0	1	1	1	1	0	0	0	0
Frequency_For_TX(RF_CH)	1	0	0	0	0	0	0	0	0
Frequency_For_RX(RF_CH)	2	0	0	0	0	0	0	0	0
TX/RX	3	0	0	0	0	0	0	0	0
Bandwidth	4	0	0	0	0	0	0	0	0
Check Words	5	0	0	0	0	0	0	0	0

Remarks		
Package_Header		
RF_CH: 0-125		
RF CH: 0-125		
TX = 1 (0b01)	RX = 2 (0b10)	
250kbps = 1 (0b01)	1Mbps = 2 (0b10)	2Mbps = 3 (0b11)
Sum(byte 0 - byte 4)		

Robot_Report Package

Byte / bit		7	6	5	4	3	2	1	0
Head	0	0xFF							
Type	1	0x02							
Robot_Num	2	0x00				Robot_Num			
Action	3	0	Infrared	Shooted	Chipped				
Battery_Voltage	4								
Cap_Voltage	5								
Wheel_1_Velocity_Encoder_Read	6								
	7								
Wheel_2_Velocity_Encoder_Read	8								
	9								
Wheel_3_Velocity_Encoder_Read	10								
	11								
Wheel_4_Velocity_Encoder_Read	12								
	13								
Wheel_1_Current	14								
	15								
Wheel_2_Current	16								
	17								
Wheel_3_Current	18								
	19								
Wheel_4_Current	20								
	21								
Dribbler_4_Current	22								
	23								
	24								
	25								