STC12C5A60S2 主控

*6
STC12C5A60S2

P0.4 OUT4 33
P0.5 OUT5 32
P0.6 OUT6 31
P0.7 OUT7 30
P46 DC 29
P45 28
P44 27
NA/P4.4 26
P2.7/A15 25
P2.6/A14 24
P2.5/A13 23

OUT334 P0.3
OUT235 P0.2
OUT136 P0.1
OUT037 P0.0
VCC 38 Vcc
R 39 MISO/RxD2/CCP0/P4.2
SDA 40 CLKOUT2/ADC0/P1.0
SCL 41 ADC1/P1.1
TXD242 RxD2/ECI/ADC2/P1.2
RXD243 TxD2/CCP0/ADC3/P1.3
ADC 44 SS/CCP1/ADC4/P1.4

P2.4/A12 22 P24
P2.3/A11 21 P23
P2.2/A10 20 P22
P2.1/A9 19 P21
P2.0/A8 18 P20
P4.0/SS 17 P40
GND 16
XTAL1 15
XTAL2 14
P3.7/RD 13 DIR
P3.6/WR 12 Step

MOSI/ADC5/P1.5
MISO/ADC6/P1.6
SCLK/ADC7/P1.7
P4.7/RST
INT/RxD/P3.0
TxD/P3.1
SCLK/TxD2/CCP2/P4.3
INT0/P3.2
INT1/P3.3
CLKOUT0/INT/T0/P3.4
CLKOUT1/INT/T1/P3.5

复位 (Reset)
VCC
C3 10uF
RESET?
R4 10K
reset
GND

晶振 (Crystal)
C1 22pF
Y1 12M
C2 22pF
GND

舵机控制区 (Servo Control)

*2 PWM
O0 1 2 O0
O1 3 4 O1
O2 5 6 O2
O3 7 8 O3
O4 9 10 O4
O5 11 12 O5
6V 13 14 6V
15 16
GND

*5 74HC573PW
5V 11 LE GND 10 GND
O7 12 Q7 D7 9 OUT7
O6 13 Q6 D6 8 OUT6
O5 14 Q5 D5 7 OUT5
O4 15 Q4 D4 6 OUT4
O3 16 Q3 D3 5 OUT3
O2 17 Q2 D2 4 OUT2
O1 18 Q1 D1 3 OUT1
O0 19 Q0 D0 2 OUT0
5V 20 VCC OE 1
GND

BOOT? Header 3X2
O6 1 2 O7
6V 3 4 6V
5 6
GND GND

外设接口 (Peripheral Interface)

*3 UART2
VCC1 1 2 VCC GND
TXD3 3 4 TX
RXD4 5 6 RX
GND

*4 Bluetooth
VCC1 1 2 VCC GND
TXD3 3 4 TX
RXD4 5 6 RX
GND

*7 UART
VCC1 1 2 VCC GND
TXD3 3 4 TX
RXD4 5 6 RX
GND

BOOT? INT
INT0 6 5 INT0
5V 4 3
2 1
GND GND

*1 oled
GND 5V
5V SCL
SCL SDA
SDA R
R DC
DC

*8 A4988
GND 12V
B2
B1
A2
A1
5V
Step
DIR

P1 A4988Out
B2
A2
A1
B1

RS? RS485
GND
RS485
Output *9 LM7805
1 2 3
GND

P2 VREF_SEL
Output 1 2
GND

电源指示 (Power Indicator)
DS?
12V
LED1
R1 1K
GND

电压采集 (Voltage Sampling)
12V
R2 10K
ADC
R3 3K
GND

P7 IO 扩展IO口
P33 1 2 P35
P34 3 4 P40

SW_SPDT
2 3
1 12V

RS? RS485
GND 12V

RS? RS485
GND 6V

D2 1N4148
12V AMS1117-5.0
IN OUT 5V
GND DOUT
GND

*11 POWER
5V 1 2 3

1N4148 D1
C4 10uF C5 1000uF VCC
C6 103
GND

多路TB6612电机驱动 (Multi-channel TB6612 Motor Driver)

*12 TB6612
AO2 AO1 VM1 P20
AO1 PWMA P26
PGND AIN2 P27
PGND AIN1 5V
AO2 VCC C7
AO2 STBY 100nF
BO2 GND GND
BO2 BIN1 P27
PGND BIN2 P26
PGND PWMB P20
BO1 VM3 12V
BO1 VM2

P3 M1
4 AO2
3 AO1
2 BO2
1 BO1

*13 TB6612
AO4 AO1 VM1 P21
AO1 PWMA P44
PGND AIN2 P45
PGND AIN1 5V
AO3 AO2 VCC C8
AO2 STBY 100nF
BO4 BO2 GND GND
BO2 BIN1 P17
PGND BIN2 P46
PGND PWMB P21
BO3 BO1 VM3 12V
BO1 VM2

P4 M2
4 AO4
3 AO3
2 BO4
1 BO3

*14 TB6612
AO6 AO1 VM1 P22
AO1 PWMA P15
PGND AIN2 P16
PGND AIN1 5V
AO5 AO2 VCC C9
AO2 STBY 100nF
BO6 BO2 GND GND
BO2 BIN1 P16
PGND BIN2 P15
PGND PWMB P23
BO5 BO1 VM3 12V
BO1 VM2

P5 M5M6
4 AO6
3 AO5
2 BO6
1 BO5

*15 TB6612
AO8 AO1 VM1 P24
AO1 PWMA
PGND AIN2
PGND AIN1 5V
AO7 AO2 VCC C10
AO2 STBY 100nF
BO8 BO2 GND GND
BO2 BIN1
PGND BIN2
PGND PWMB P25
BO7 BO1 VM3 12V
BO1 VM2

P6 M3M4
4 AO8
3 AO7
2 BO8
1 BO7

Bill of Materials

\<Parameter Title not found\>

Source Data From:	**WreckerCar.PrjPcb**	
Project:	**WreckerCar.PrjPcb**	
Variant:	**None**	

Creation Date: 2017/12/2   11:27:44

Print Date: 02-Dec-17   11:27:50 AM

Footprint	Comment	LibRef	Designator	Description	Quantity
header1*6	oled	header1*6	*1		1
HEADER2*8	PWM	HEADER2*8	*2		1
HDR1X4	UART2	Header4booth	*3		1
HDR1X4	Bluetooth	Header4booth	*4		1
TSSOP-20	74HC573PW	74HC573PW	*5		1
LQFP-44	STC12C5A60S2	STC12C5A60S2	*6		1
HDR1X4	UART	Header4booth	*7		1
A4988	A4988	HEADER2*8	*8		1
header1*3	LM7805	header3*1	*9		1
钮子开关	SW_SPDT	SW_SPDT	*10		1
header1*3	POWER	header3*1	*11		1
TSOP65P760 X120-24N	TB6612	TB6612	*12, *13, *14, *15		4
AMS1117	AMS1117-5.0	AMS1117	1		1
HDR2X3	Header 3X2	Header 3X2	BOOT?	Header, 3-Pin, Dual row	1
HDR2X3	INT	Header 3X2	BOOT?	Header, 3-Pin, Dual row	1
0603P	22pF	C	C1, C2		2
Cap10uF	10uF	CAP	C3, C4		2
Cap1000uF	1000uF	CAP	C5		1
0603P	103	C	C6		1
0805	100nF	C	C7, C8, C9, C10		4
DIODE_SOP	1N4148	D	D1, D2		2
SMDLED	LED1	LED2	DS?	Typical RED, GREEN, YELLOW, AMBER GaAs LED	1
HDR1X4	A4988Out	Header 4	P1	Header, 4-Pin	1
HDR1X2	VREF_SEL	Header 2	P2	Header, 2-Pin	1
HDR1X4	M1	Header 4	P3	Header, 4-Pin	1
HDR1X4	M2	Header 4	P4	Header, 4-Pin	1
HDR1X4	M5M6	Header 4	P5	Header, 4-Pin	1
HDR1X4	M3M4	Header 4	P6	Header, 4-Pin	1
HDR2X2	IO	Header 2X2	P7	Header, 2-Pin, Dual row	1
0603P	1K	R	R1		1
0603P	10K	R	R2, R4		2
0603P	3K	R	R3		1
KEY	KEY_M	KEY_M	RESET?		1
HEAD2L-0.8	RS485	HEAD2	RS?		3
XTAL_US	12M	XTAL	Y1	Crystal Oscillator	1
					47

Approved	Notes	