

## STM32F103ZET6

FSMC_A0	PF0	1	2
FSMC_A2	PF2	3	4
FSMC_A4	PF4	5	6
ADC3_IN4	GRAY_AD1	PF6	7
ADC3_IN6	GRAY_AD3	PF8	9
ADC3_IN8	GRAY_AD5	PF10	11
ADC123_IN11	GRAY_AD7	PC1	13
ADC123_IN13	AD_Power	PC3	15
ADC123_IN1/ TIM5_CH2/TIM2_CH2	GRAY_AD10	PA1	17
USART2_RX/TIM5_CH4	ADC123_IN3/TIM2_CH4	PA3	19
SPI1_SCK/DAC_OUT2/ADC12_IN5	GRAY_AD12	PA5	21
SPI1_MOSI/TIM8_CH1N/ADC12_IN7	TIM3_CH2	PA7	23
ADC12_IN15	GRAY_AD16	PC5	25
ADC12_IN9/TIM3_CH4/TIM8_CH3N	Photocell_AN2	PB1	27
FSMC_NIOS16	Photocell_AN4	PF11	29
FSMC_A7	Photocell_AN6	PF13	31
FSMC_A9	Photocell_AN8	PF15	33
FSMC_A11	PG1	35	36
FSMC_D5/TIM1_CH1N	L1_MISO	PE8	37
FSMC_D7/TIM1_CH2N	L1_SS	PE10	39
FSMC_D9/TIM1_CH3N	L2_SCK	PE12	41
FSMC_D11/TIM1_CH4	L2_MISO	PE14	43
I2C2_SCL/USART3_TX/TIM2_CH3	Motor_2_A	PB10	45
I2C2_SDA/USART3_RX/TIM2_CH4	Motor_2_B	PB11	47

测电压

巡线传感器

电机2

PF1	FSMC_A1
PF3	FSMC_A3
PF5	FSMC_A5
PF7	ADC3_IN5
PF9	ADC3_IN7
PC0	ADC123_IN10
PC2	ADC123_IN12
PA0	WKUP/ADC123_IN0/TIM2_CH1_ETR/TIM5_CH1/TIM8_ETR
PA2	USART2_TX/TIM5_CH3
PA4	DAC_OUT1/ADC12_IN4
PA6	SPI1_MISO/TIM8_BKIN/ADC12_IN6
PC4	ADC12_IN14
PB0	ADC12_IN8/TIM3_CH3/TIM8_CH2N
PB2	
PF12	FSMC_A6
PF14	FSMC_A8
PG0	FSMC_A10
PE7	FSMC_D4/TIM1_ETR
PE9	FSMC_D6/TIM1_CH1
PE11	FSMC_D8/TIM1_CH2
PE13	FSMC_D10/TIM1_CH3
PE15	FSMC_D12/TIM1_BKIN

灰度传感器

电机1

光电开关

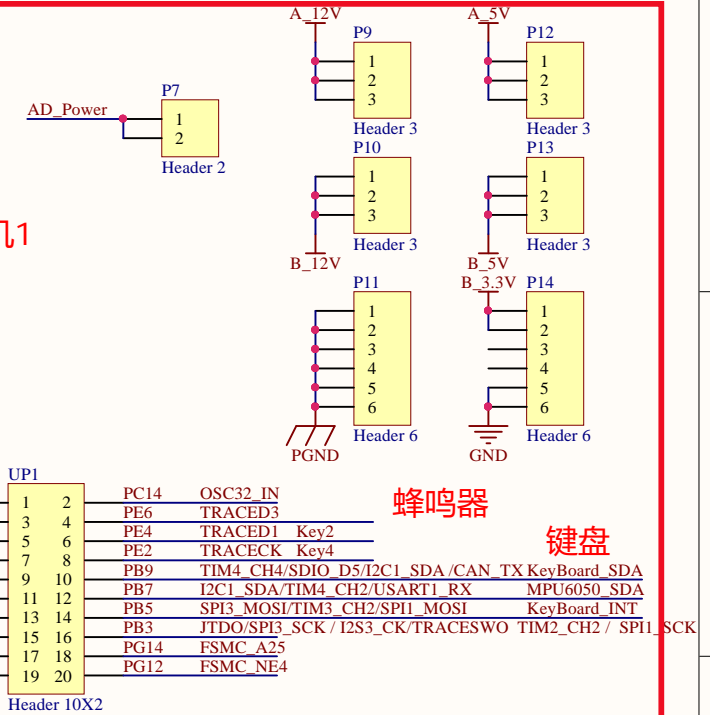
舵机

MPU6050

Key1	TRACED2
Key3	TRACED0
Key5	TIM4_ETR / FSMC_NBL0
KeyBoard_SCL	TIM4_CH3/SDIO_D4/I2C1_SCL/CAN_RX
MPU6050_SCL	I2C1_SCL/TIM4_CH1/USART1_TX
MPU6050_INT	NTRST/SPI3_MISO/TIM3_CH1/SPI1_MISO
FSMC_A24	PG15
	PG13

串口  
摄像头串口

超声波



蜂鸣器

键盘

Title MCU

Size: A4

Number:\*

Revision:\*

Date: 2020/5/31

Time: 17:21:55

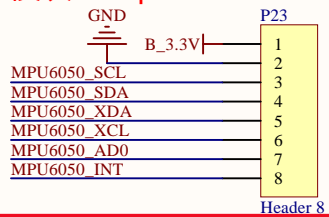
Sheet1 of 3

File: C:\Users\ustbs\Desktop\RobotControlBoard\_V3.0\MCU\_V3.0.SchDoc

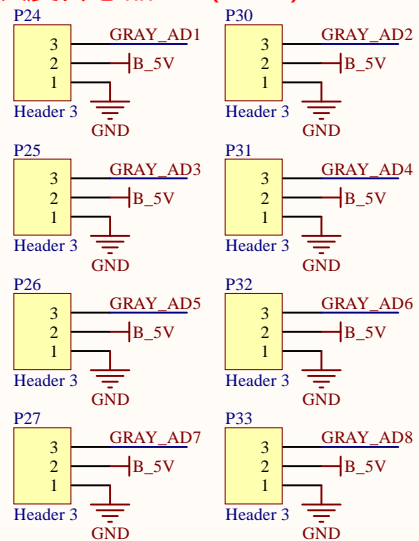
Altium

## Sensors

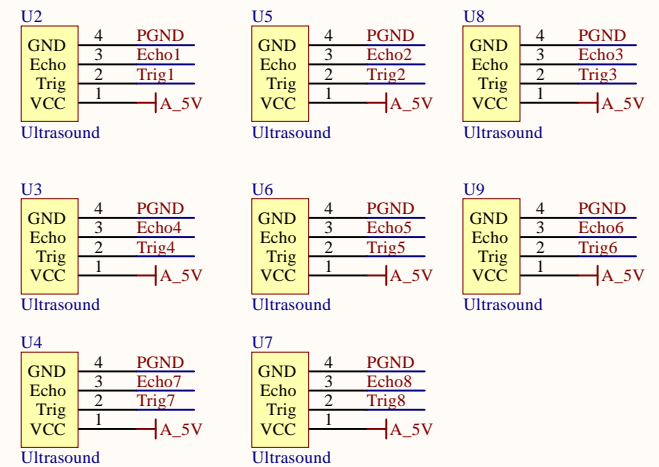
### GY-521模块 mpu6050



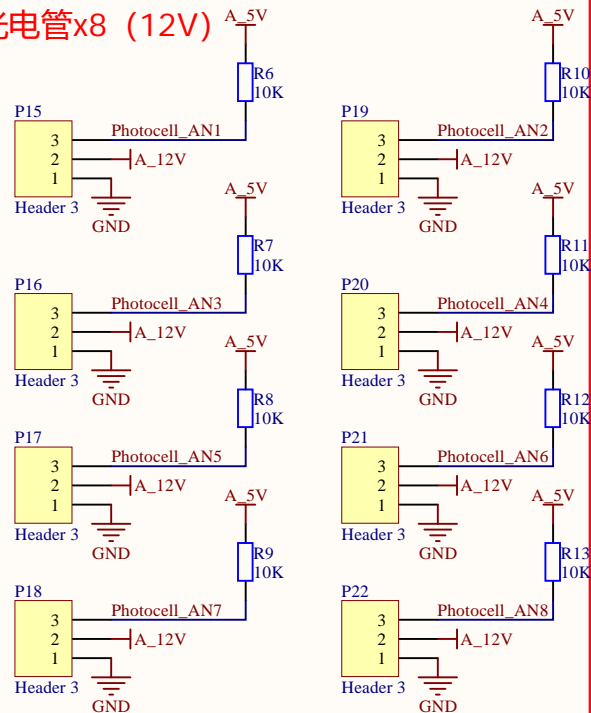
### 灰度传感器x8 (3.3V)



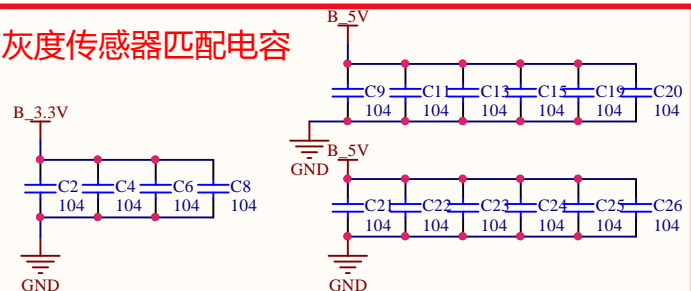
### 超声波x8 (5V)



### 光电管x8 (12V)



### 灰度传感器匹配电容



Title **Sensors**

Size: **A4**

Number:\*

Revision:1.0

Date: 2020/5/31

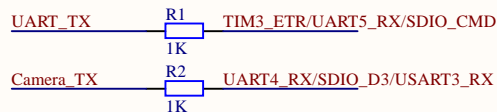
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Sheet2 of 3

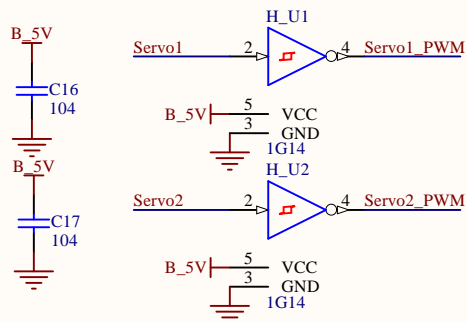
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**Altium**

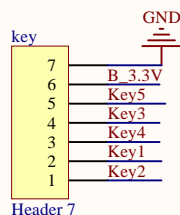
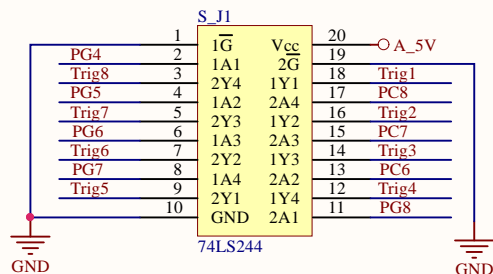
## 逻辑电平转换 (3.3V<->5V) A->B(DIR-H)



UART\_RX UART5\_TX/SDIO\_CK/USART3\_CK  
Camera\_RX UART4\_TX/SDIO\_D2/USART3\_TX

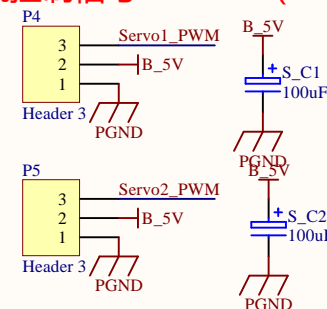
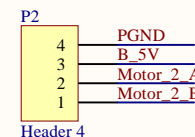
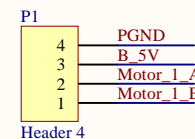


Echo1	PD10
Echo2	PD11
Echo3	PD12
Echo4	PD13
Echo5	PD14
Echo6	PD15
Echo7	PG2
Echo8	PG3

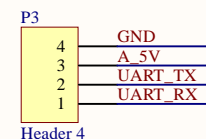


## 电机控制信号PPMx4/PWMx4/USARTx2(5V)

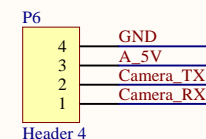
### 舵机控制信号PWMx2 (5V)



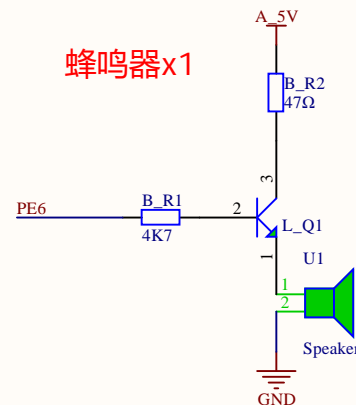
### 串口x1



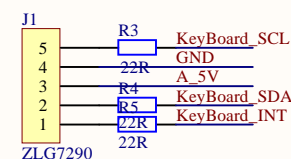
### 摄像头x1 (串口)



### 蜂鸣器x1



### Keyboardx1



Title **Interface**

Size: **A4**

Number:\*

Revision:1.0

Date: 2020/5/31

Time: 17:21:55

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File: C:\Users\ustbs\Desktop\RobotControlBoard\_V3.0\Interface\_V3.0.SchDoc

**Altium**

110.41 (mm)

70.43 (mm)

