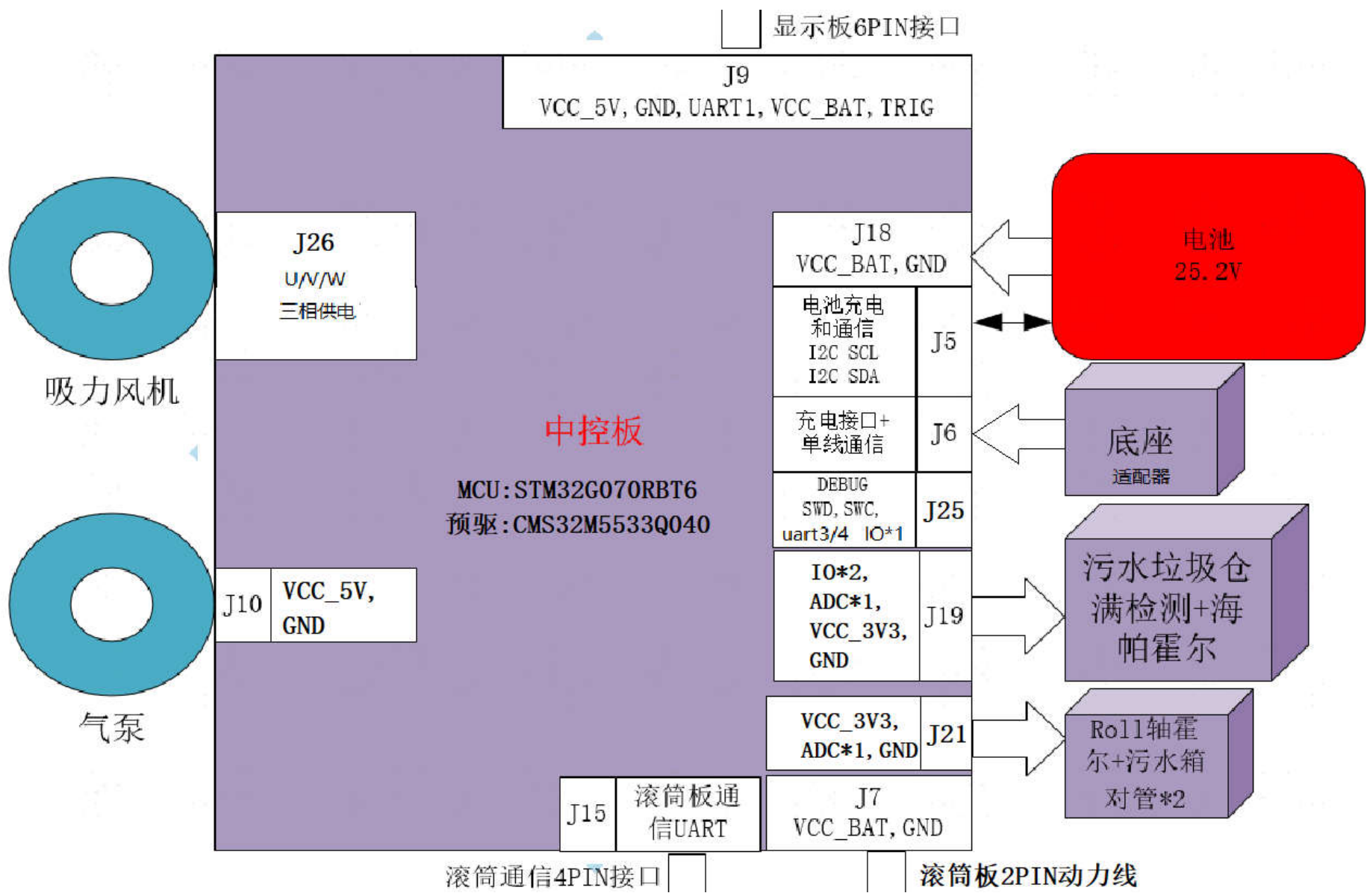
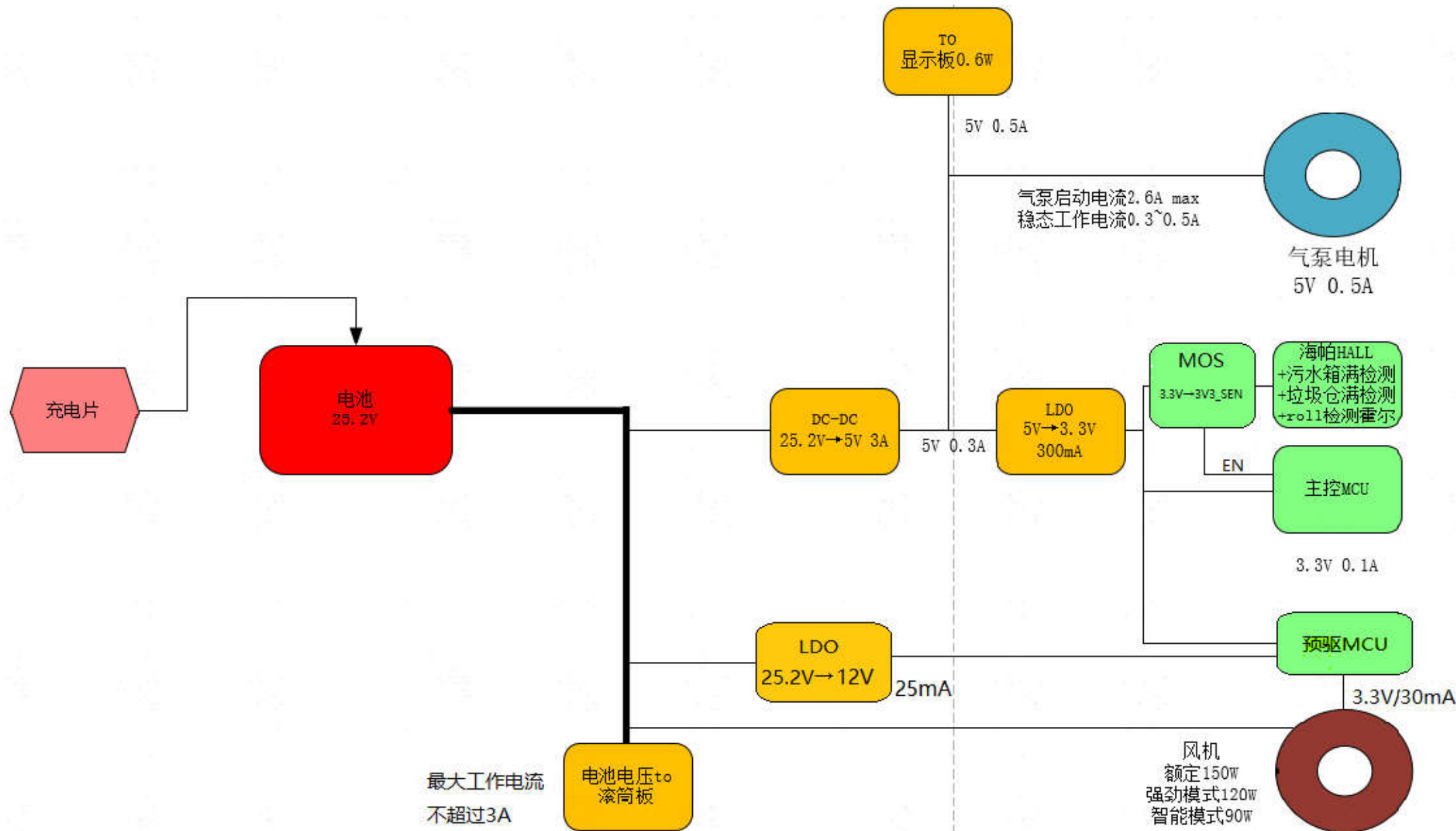






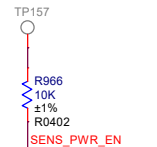
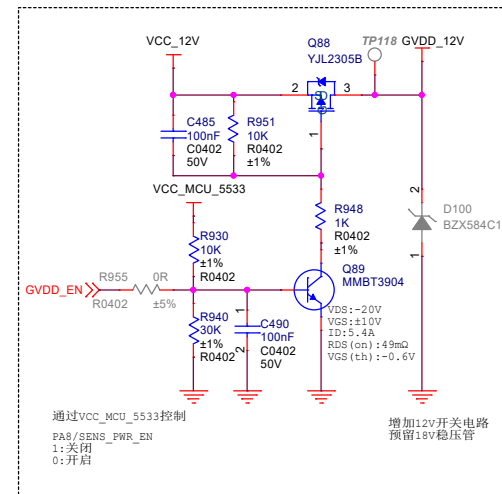
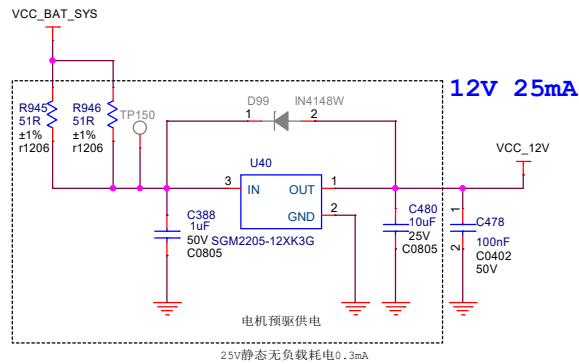
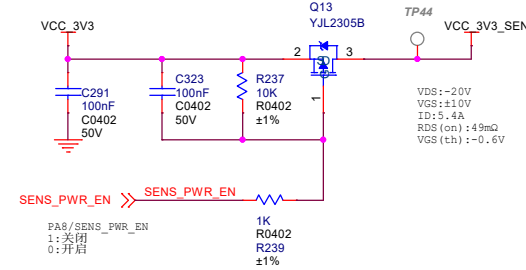
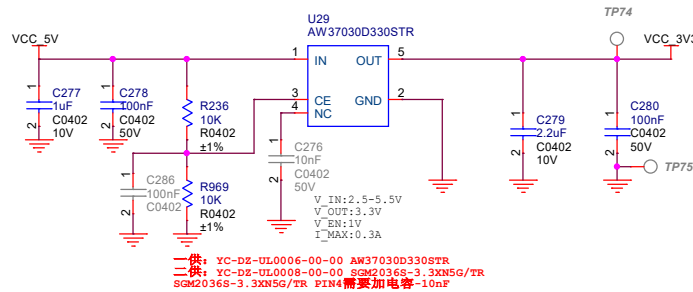
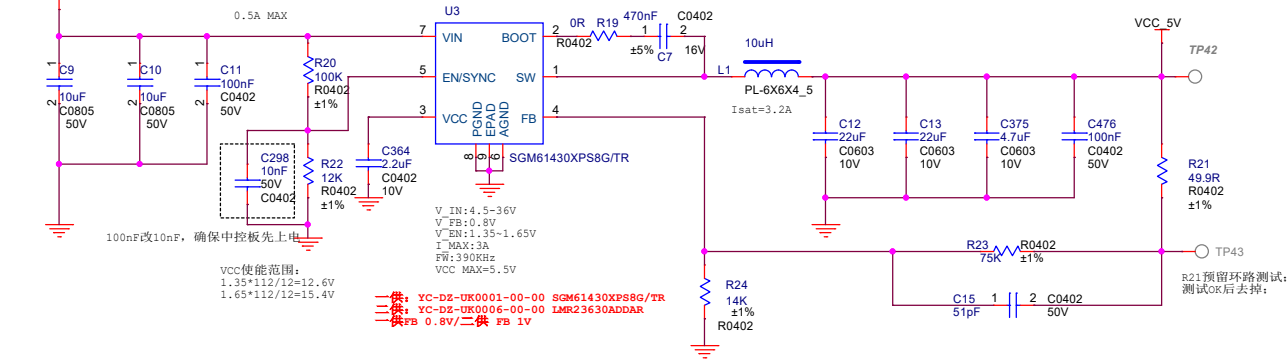
<Variant Name>

NARWAL 云鲸		
Title		Author
01_POWER TREE		
Size	Document Number	Rev
A4	IP2103_ROBOT_MB01_V4	V4
Date:	Thursday, December 21, 2023	Sheet 2 of 14

BAT voltage : 16V~25.2V

BOOT to SW :-0.3V to 5.5V
18-25.2V->5.0V
Vout=0.8*(1+75/14)=5.08V

5V 3Amax

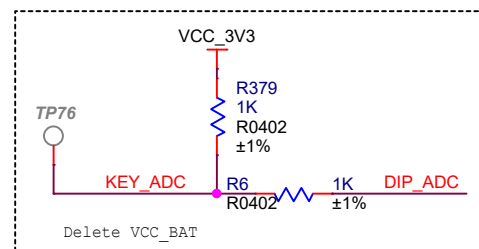
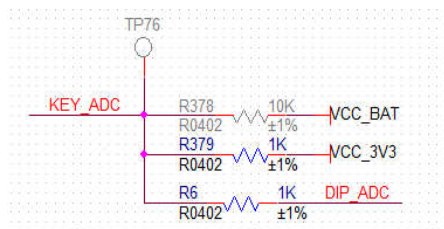
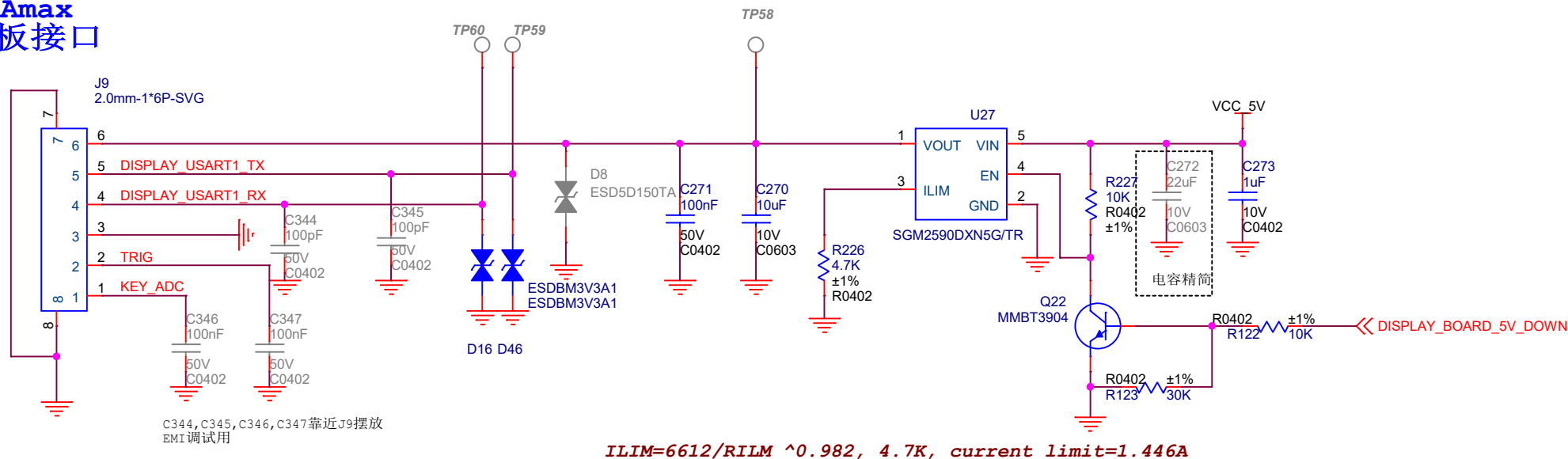


<Variant Name>

NARVAL 云鲸		
Title	03_POWER	Author
Size	Document Number	Rev
A3	IP2103_ROBOT_MB01_V4	V4
Date:	Thursday, December 21, 2023	Sheet 4 of 14

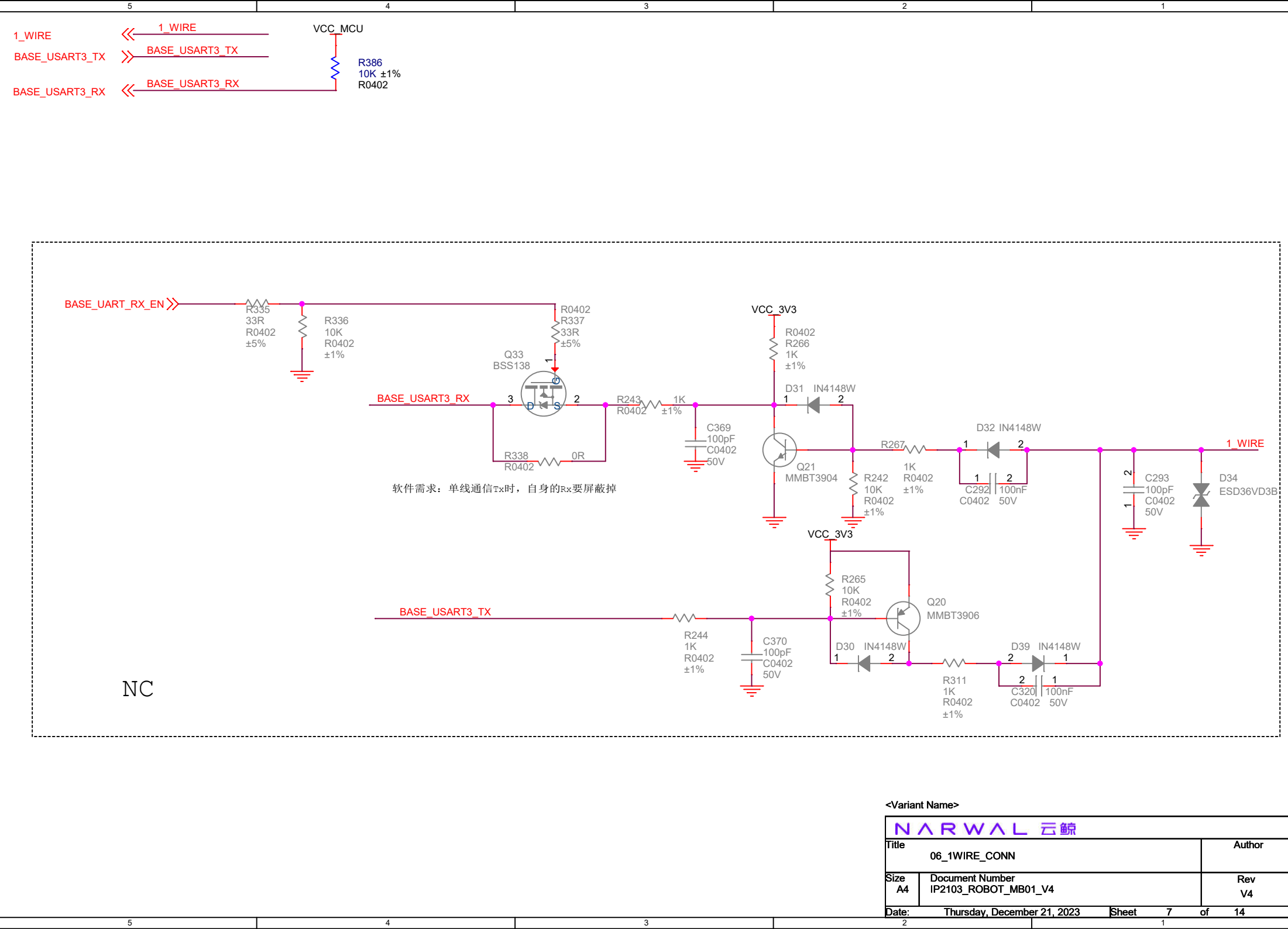
DISPLAY_USART1_TX << DISPLAY_USART1_TX
DISPLAY_USART1_RX << DISPLAY_USART1_RX
TRIG << TRIG
DIP_ADC << DIP_ADC

5V 1Amax 显示板接口



<Variant Name>

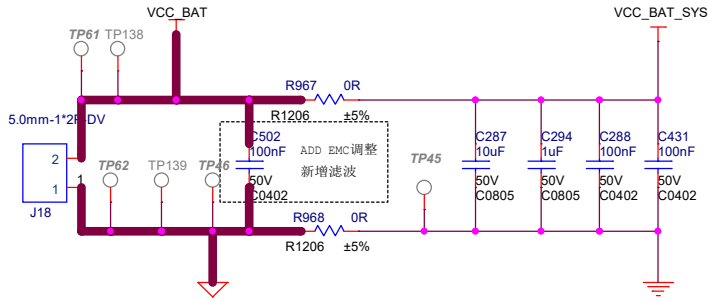
NARWAL 云鲸		
Title		Author
04_DISPLAY_CONN		
Size	Document Number	Rev
A4	IP2103_ROBOT_MB01_V4	V4
Date:		Sheet
Thursday, December 21, 2023		5 of 14



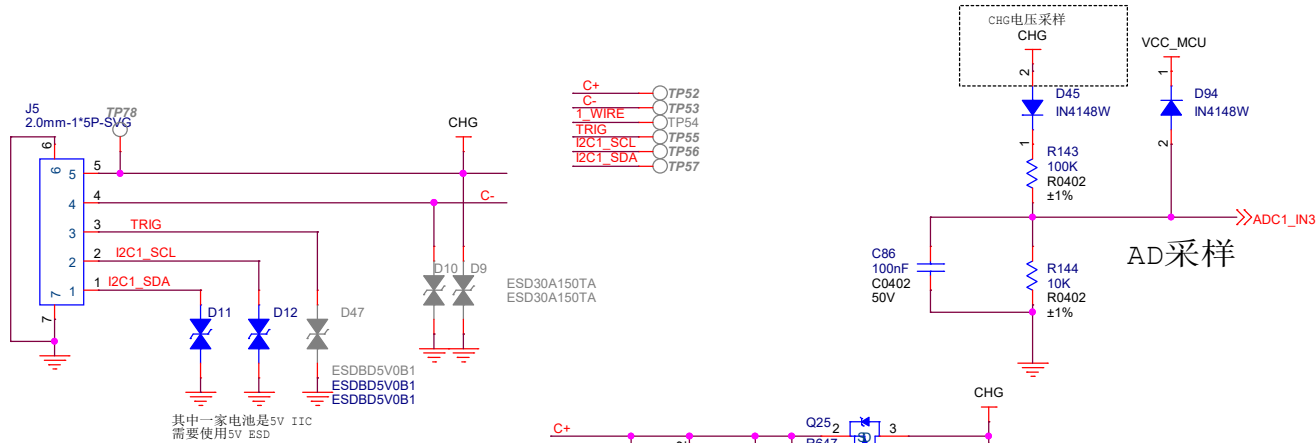
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NARWAL 云鲸		
Title06_1WIRE_CONN		Author
SizeA4	Document NumberIP2103_ROBOT_MB01_V4	RevV4
Date:Thursday, December 21, 2023	Sheet7	of14

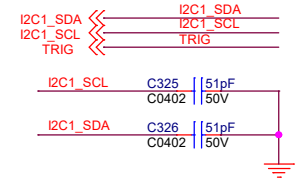
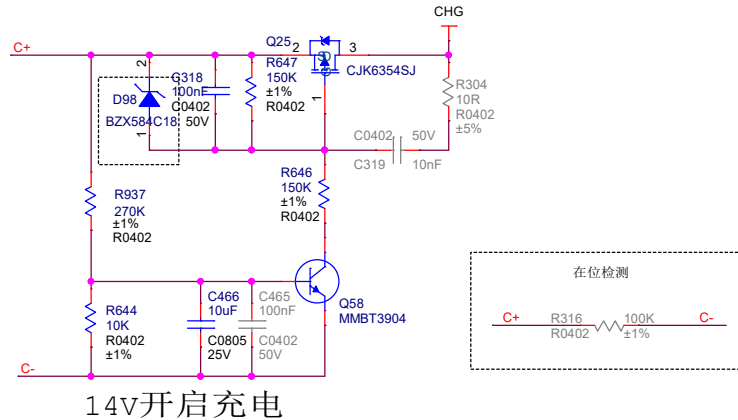
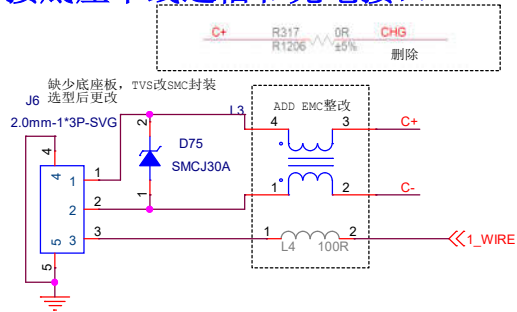
电池放电口



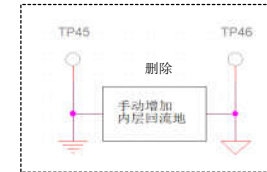
电池充电和I2C通信，与底座单线通信接口



接底座单线通信和充电接口



先不贴，回板验证确认是否增加



功率地 数字地做分割
数字地在J3 附近回流

<Variant Name>

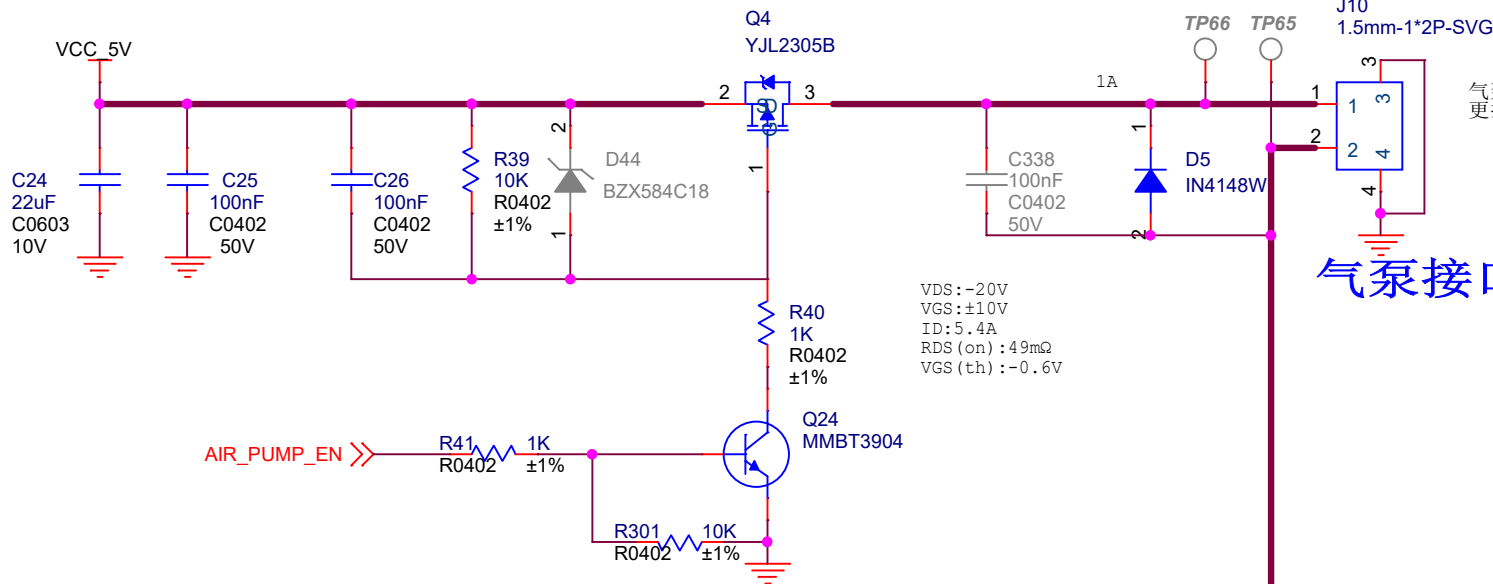
NARVAL 紫鲸

Title		Author
07_BATTERY_CONN		
Size	Document Number	Rev
B	IP2103_ROBOT_MB01_V4	V4
Date: Thursday, December 21, 2023		Sheet 8 of 14

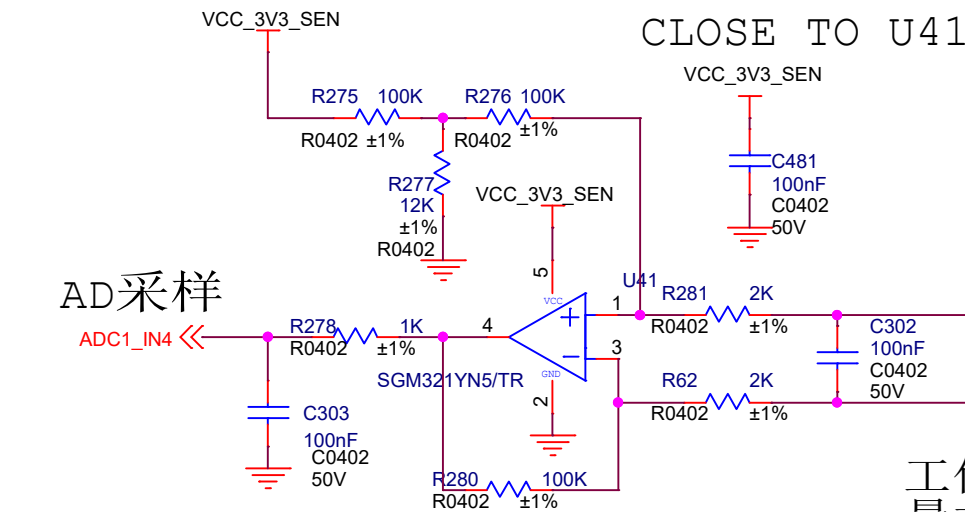


<Variant Name>

NARWAL 云鲸		
Title	08_MOTOR1	Author
Size	Document Number	Rev
A3	IP2103_ROBOT_MB01_V4	V4
Date:	Thursday, December 21, 2023	Sheet 9 of 14



气泵连接器根据插拔力要求
更换成GH1.5-2P

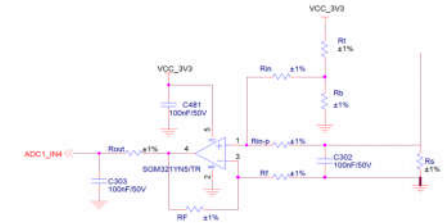


CLOSE TO U41

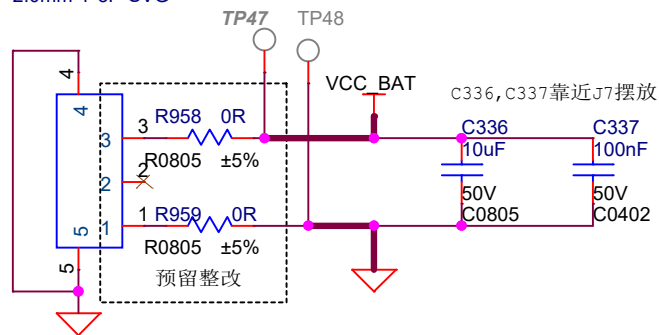
工作电流300mA左右
最大不超过550mA

	值	min	max	引脚	Min	Max	单位	备注
VCC	5.3	99	101	Vref	514.23	525.76	mV	精度 1%误差
REF	12	11.88	12.12	REF	-5.6	5.6	mV	
REF	2	1.98	2.02	REF	48.01	51.01	mV	精度 1%误差
REF	300	299	301	Stop/Start	-285.48	285.48	mV	精度 1%误差
REF	2	1.98	2.02	Vref/Ref	51.01	52.01	mV	精度 1%误差
VCC	5.0	5.0	5.0	量测电压	2020	2221	mV	精度 1%误差
REF	10.0	10.0	10.0	量测电压	1.05	1.34	A	

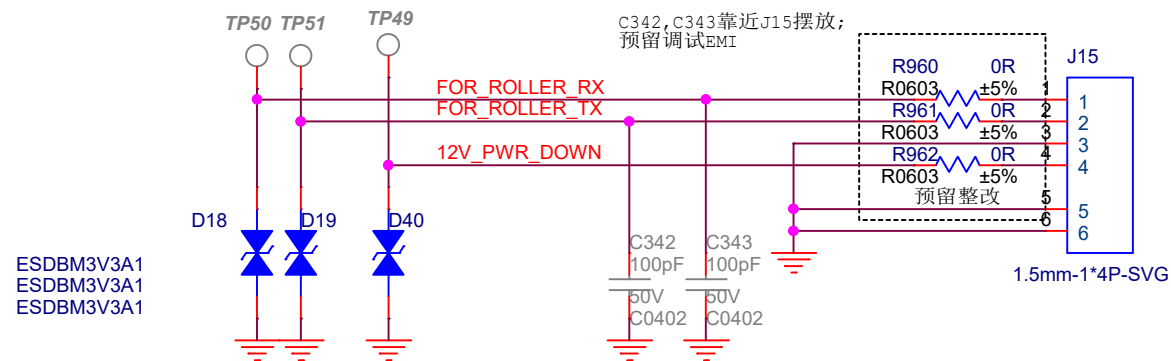
备注: REF与pin要保持同样阻值/REF与REF要保持同样阻值



J7 2.0mm-1*3P-SVG



工作电流预留3A



FOR_ROLLER_RX << FOR_ROLLER_RX

FOR_ROLLER_TX >> FOR_ROLLER_TX

12V_PWR_DOWN >> 12V_PWR_DOWN

滚筒板接口

NARWAL 云鲸		
Title		Author
10_Roller_CONN		曾浴华
Size	Document Number	Rev
A	IP2103_ROBOT_MB01_V4	V4
Date:	Thursday, December 21, 2023	Sheet 11 of 14

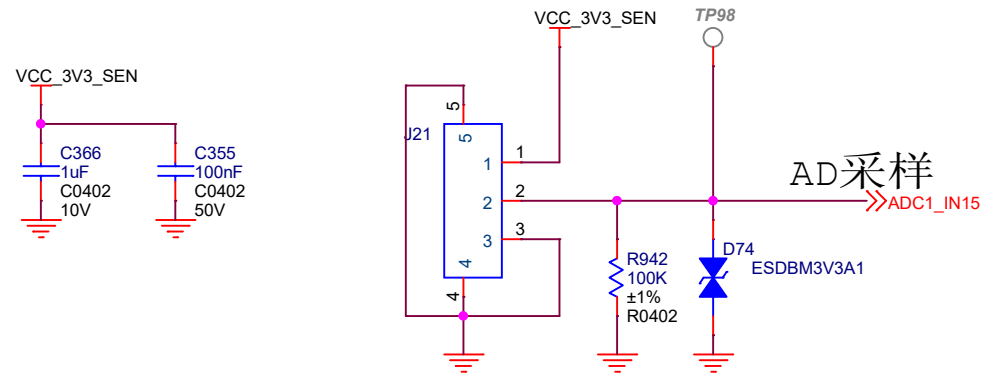
D

C

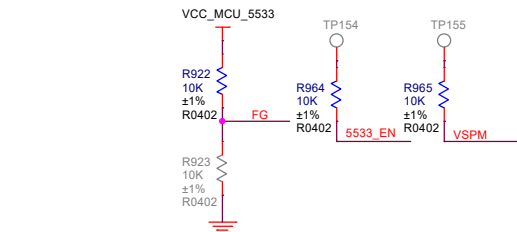
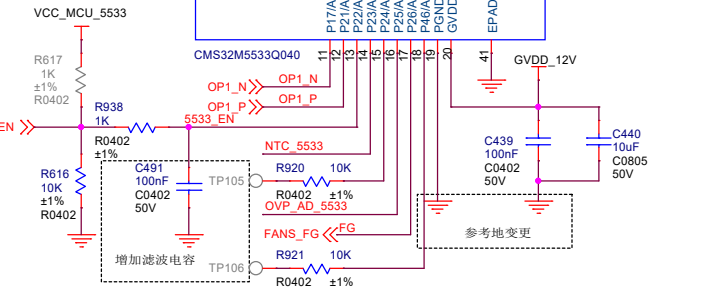
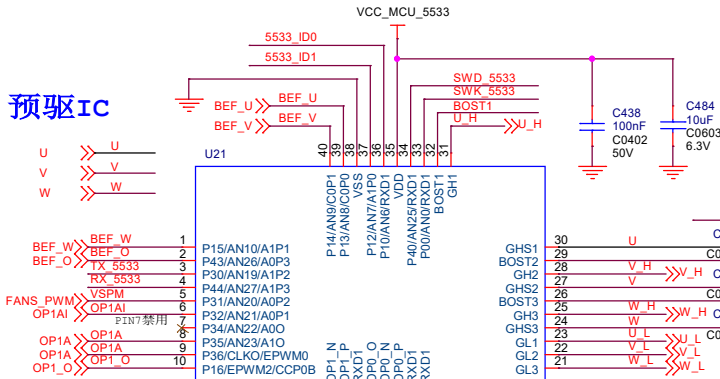
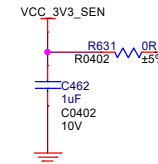
B

A

RO11轴检测霍尔

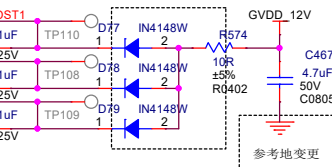


NARWAL 云鲸		
Title		Author
11_ROLL_HALL_SENSOR		曾浴华
Size	Document Number	Rev
A4	IP2103_ROBOT_MB01_V4	V4
Date:	Thursday, December 21, 2023	Sheet 12 of 14

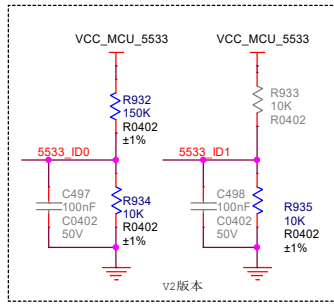


转速	分压(V)	R932	R934	R933	R935
1	0.00	10K			
2	0.2150K	10K			
3	0.43100K	15K			
4	0.7551K	15K			
5	1.120K	10K			
6	1.3215K	10K			
7	1.5815K	47K			
8	1.8815K	20K			
9	2.2110K	20K			
10	2.5815K	51K			
11	2.8715K	100K			
12	3.0815K	150K			
13	3.310K	10K			

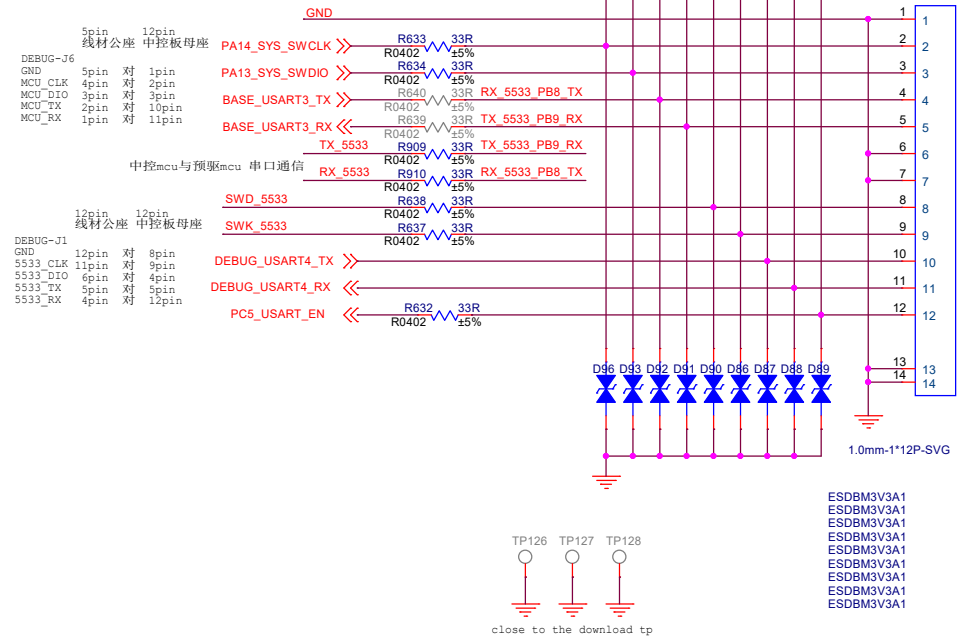
三相桥驱自举



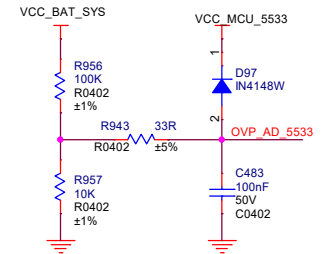
管子更换为高速开关二极管



转5pin接线端子，参考中控板以前的debug座



close to the download tp



NARVAL 云鲸			Author
Title	12_Vacumm Pump		曾路华
Size	Document Number	Rev	
A3	IP2103_ROBOT_MB01_V4	V4	
Date:	Thursday, December 21, 2023	Sheet	13 of 14

