

1 OLED显示屏

OLED IIC-Connector

- GND 1 → GND
- VCC 2 → OU3V3
- SCL 3 → PB10
- SDA 4 → PB11

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U1 STM32103C6T6A

Pin connections (Left side):

- PA0 → 5
- PA1 → 6
- PA2 → 7
- PA3 → 8
- PA4 → 9
- PA5 → 10
- PA6 → 11
- PA7 → 12
- PB0 → 13
- PB1 → 14
- PB10 → 15
- PB11 → 16

Pin connections (Right side):

- VB 3.3 → 40
- C13 G → 39
- C14 5V → 38
- C15 B9 → 37
- A0 B8 → 36
- A1 B7 → 35
- A2 B6 → 34
- A3 B5 → 33
- A4 B4 → 32
- A5 B3 → 31
- A6 B2 → 30
- A7 B1 → 29
- B0 A11 → 28
- B1 A10 → 27
- B10 A9 → 26
- B11 A8 → 25
- R B15 → 24
- 3.3 B14 → 23
- G B13 → 22
- G B12 → 21

Other connections:

- OU3V3 → GND
- TB3V3 → 18
- GND → 19

3 陀螺仪与加速度计

U4 MPU-6050

MPU-6050模块

- INT → PB5
- ADO → GND
- XCL → GND
- XDA → GND
- SDA → PB9
- SCL → PB8
- GND → GND
- VCC → OU3V3

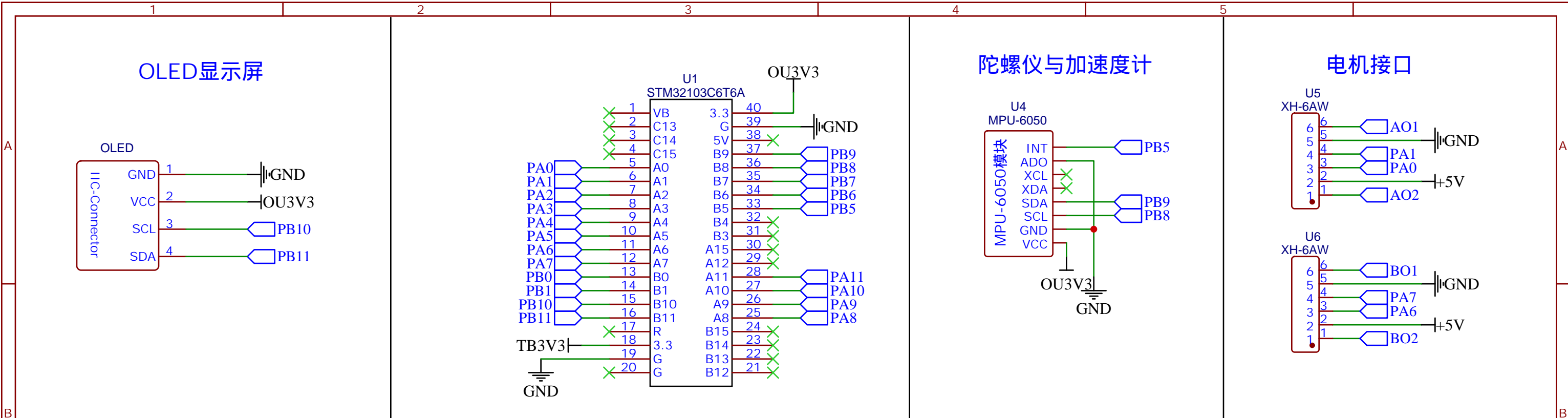
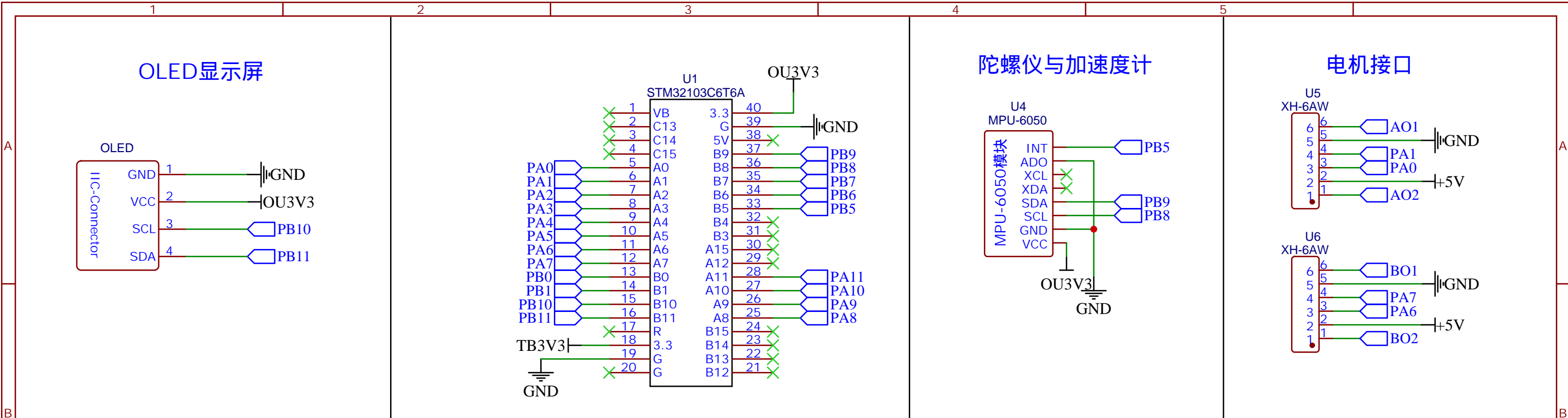
4 电机接口

U5 XH-6AW

- 6 → AO1
- 5 → GND
- 4 → PA1
- 3 → PA0
- 2 → AO2
- 1 → +5V

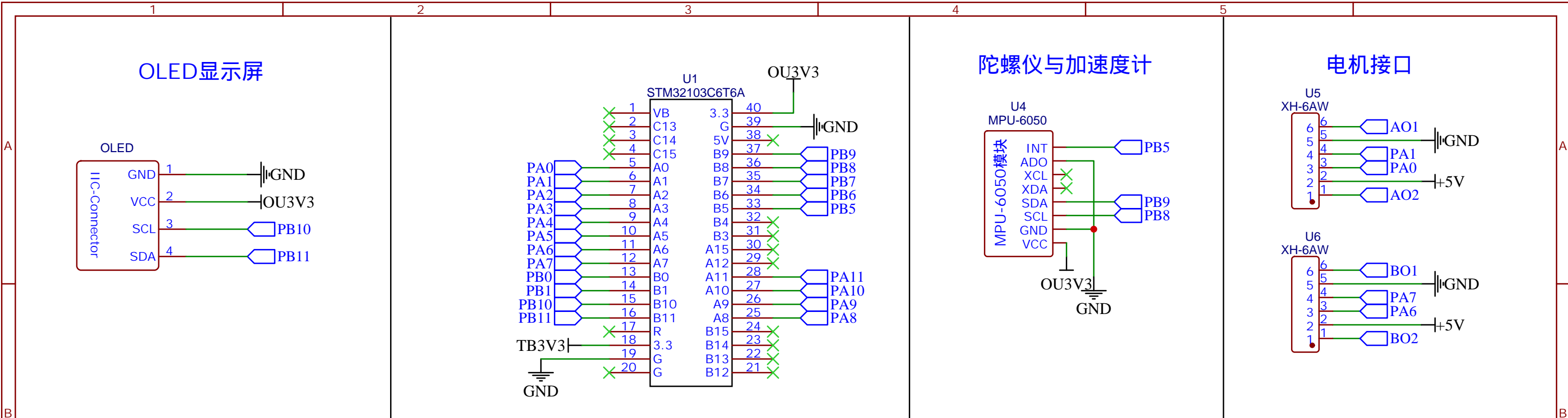
U6 XH-6AW

- 6 → BO1
- 5 → GND
- 4 → PA7
- 3 → PA6
- 2 → BO2
- 1 → +5V



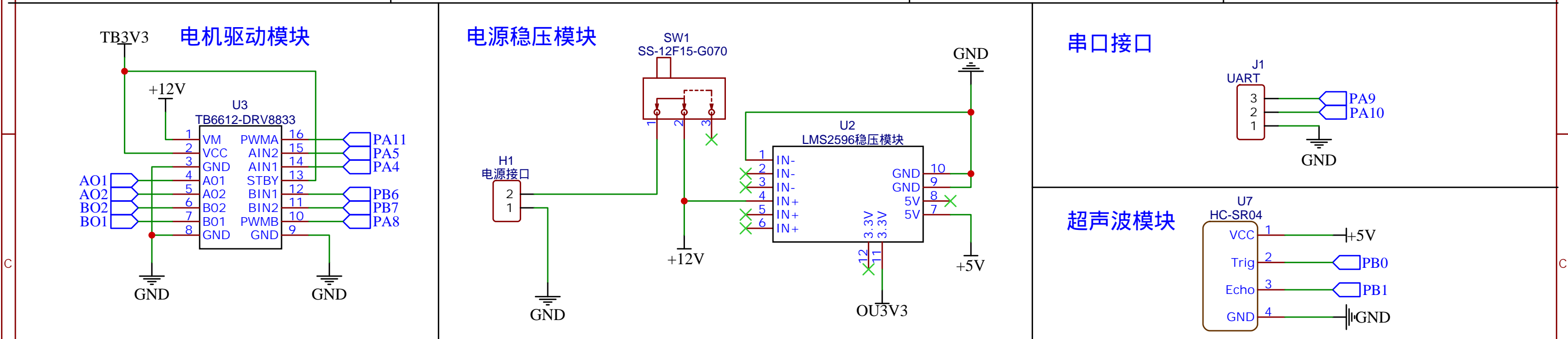
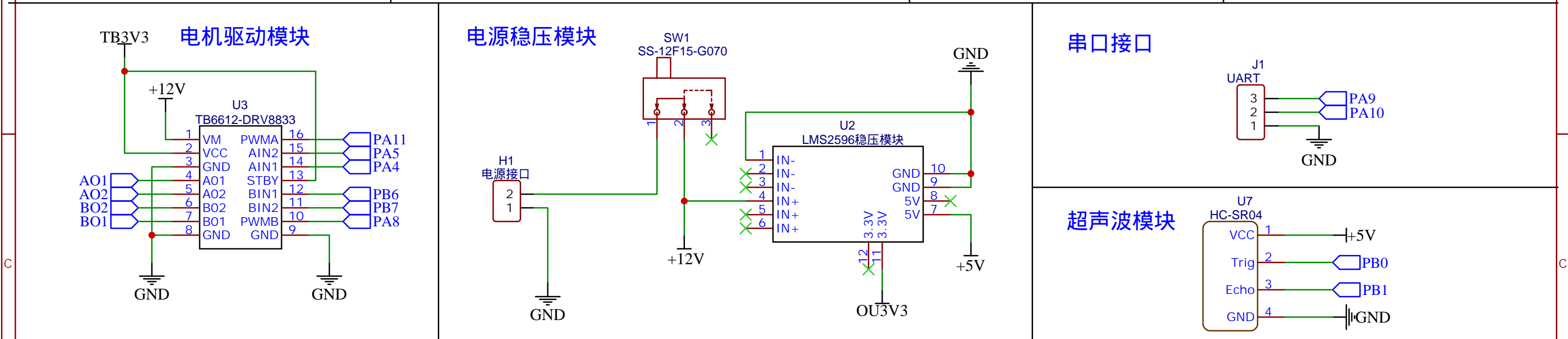
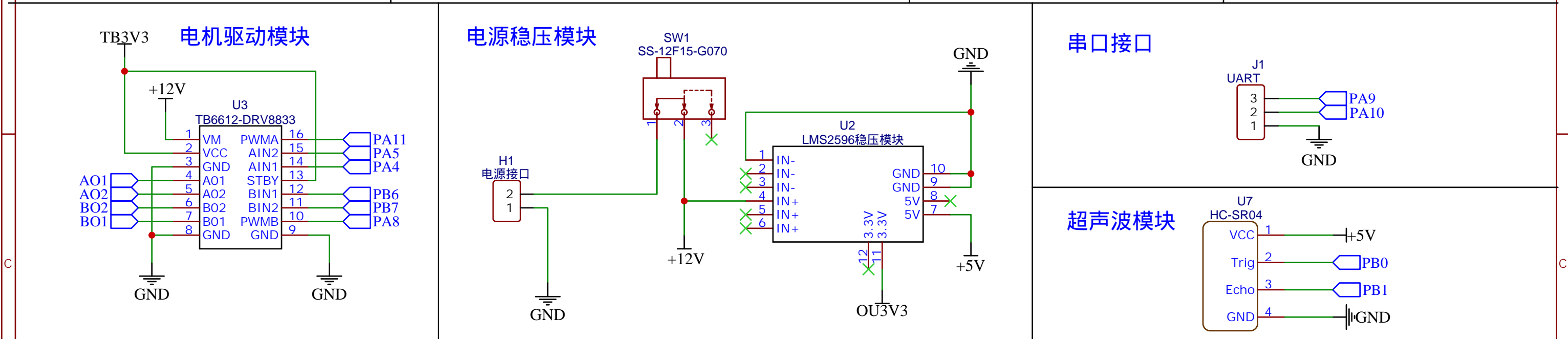
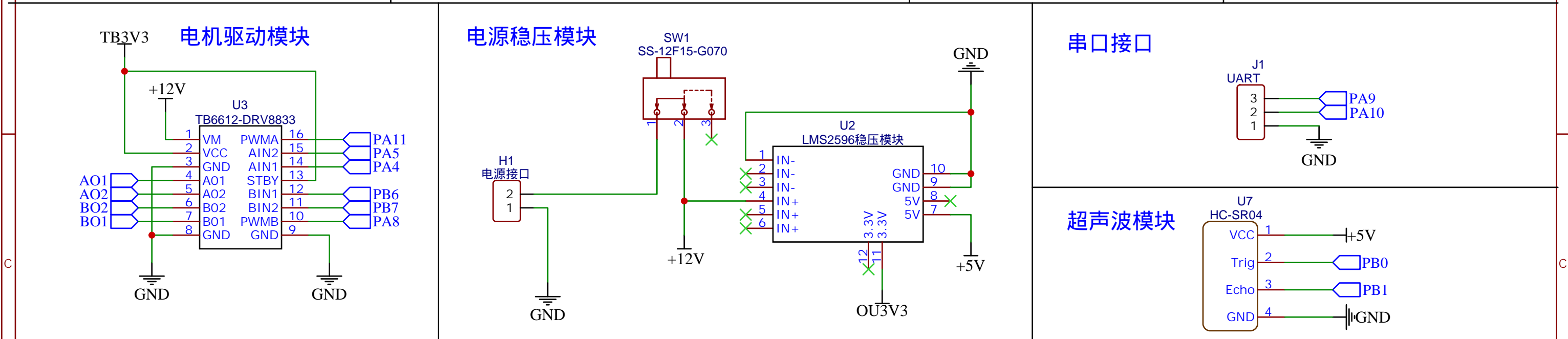
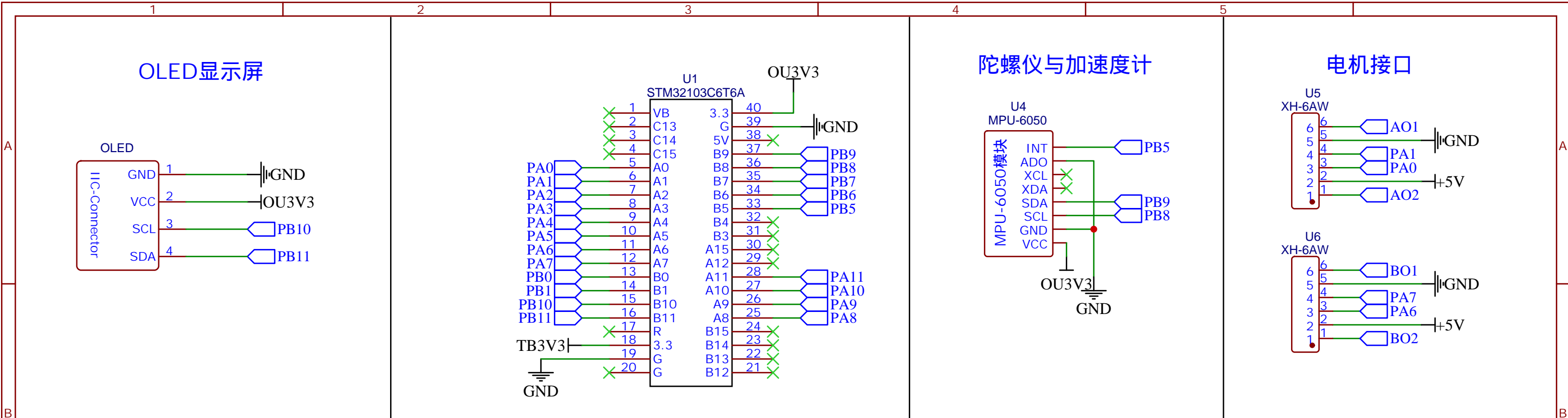
The diagram illustrates the pin connections for an STM32103C6T6A microcontroller across five functional blocks:

- 1. OLED显示屏 (OLED Display):** An IIC-Connector is connected to the microcontroller. GND (pin 1) is connected to ground. VCC (pin 2) is connected to OU3V3. SCL (pin 3) is connected to PB10. SDA (pin 4) is connected to PB11.
- 2. Main microcontroller pin connections:** The STM32103C6T6A (U1) is shown with its 40 pins. Power pins (VB, C13, C14, C15, 3.3V, 5V, G) are connected to TB3V3 and OU3V3. Ground pins (G, 18, 19, 20) are connected to GND. Data pins (A0-A15, B0-B15) are connected to various peripheral pins (PB9, PB8, PB7, PB6, PB5, PA11, PA10, PA9, PA8, PA7, PA6, PA5, PA4, PA3, PA2, PA1, PA0).
- 3. 陀螺仪与加速度计 (Gyro and Accelerometer):** An MPU-6050 (U4) is connected. INT (pin 1) is connected to PB5. ADO (pin 2) is connected to PB9. XCL (pin 3) is connected to PB8. XDA (pin 4) is connected to PB9. SDA (pin 5) is connected to PB8. SCL (pin 6) is connected to PB8. GND (pin 7) is connected to GND. VCC (pin 8) is connected to OU3V3.
- 4. 电机接口 (Motor Interface):** Two XH-6AW connectors (U5 and U6) are shown. U5 is connected to AO1 (pin 6), PA1 (pin 5), PA0 (pin 4), and AO2 (pin 3). U6 is connected to BO1 (pin 6), PA7 (pin 5), PA6 (pin 4), and BO2 (pin 3). Both connectors are connected to GND and +5V.



The diagram illustrates the wiring for an STM32103C6T6A microcontroller across five functional blocks:

- Block 1: OLED显示屏 (OLED Display)**
 - OLED IIC-Connector:**
 - GND (Pin 1) to GND
 - VCC (Pin 2) to OU3V3
 - SCL (Pin 3) to PB10
 - SDA (Pin 4) to PB11
- Block 2: Main Microcontroller Connections (U1: STM32103C6T6A)**
 - Power and Ground:**
 - VB (Pin 1) to 3.3V
 - C13 (Pin 2) to G
 - C14 (Pin 3) to 5V
 - C15 (Pin 4) to B9
 - TB3V3 (Pin 18) to 3.3V
 - GND (Pin 19) to GND
 - G (Pin 20) to G
 - GPIO Connections:**
 - PA0 to PB9
 - PA1 to PB8
 - PA2 to PB7
 - PA3 to PB6
 - PA4 to PB5
 - PA5 to PB5
 - PA6 to PA11
 - PA7 to PA10
 - PB0 to PA9
 - PB1 to PA8
 - PB10 to PA8
 - PB11 to PA8
- Block 3: 陀螺仪与加速度计 (Gyro and Accelerometer) (U4: MPU-6050)**
 - MPU-6050 Module:**
 - INT to PB5
 - ADO to GND
 - XCL to GND
 - XDA to GND
 - SDA to PB9
 - SCL to PB8
 - GND to GND
 - VCC to OU3V3
- Block 4: 电机接口 (Motor Interface) (U5: XH-6AW)**
 - Motor Interface:**
 - AO1 to GND
 - PA1 to GND
 - PA0 to +5V
 - AO2 to +5V
- Block 5: 电机接口 (Motor Interface) (U6: XH-6AW)**
 - Motor Interface:**
 - BO1 to GND
 - PA7 to GND
 - PA6 to +5V
 - BO2 to +5V



蓝牙模块

U8
HC06

RXD
TXD
GND
VCC

PA3
PA2

GND

+5V

TITLE: Blance Car

REV: 1.0

Company: Viking

Sheet: 1/1

Date: 2023-05-17 Drawn By: Jia Sujian



蓝牙模块

U8
HC06

RXD
TXD
GND
VCC

PA3
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GND

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