Methods to Troubleshoot ArmPi FPV Servo

1. Introduction

Some customers have reported that the servo motor of the ArmPi FPV robotic arm is not functioning properly, and the cause is unknown. To help users quickly diagnose the issue, we provide methods for hardware detection of the servo motor.

2. Operation Steps

Step 1: Quickly power off the robot and check for any noticeable pungent odor.

1. If a strong pungent odor is detected, identify the specific location and contact support team for inspection.
2. If no pungent odor is detected, proceed to Step 2.

Step 2: After powering off, rotate the main servo disk on the servo output shaft.

1. If the main servo disk rotates easily but the servo output shaft does not, the gears inside the servo horn may be worn out. Replace the servo horn and try again.

2. If the servo horn is fine but the servo output shaft does not move, it indicates that the servo is stuck and has been damaged.

3. If it rotates normally, proceed to Step 3.

Step 3: Replace the servo wire or port with an adjacent one, and test the servo motor using the upper computer software.

1. Swap the wire with a working servo wire to check if the wire is functioning. If the wire is faulty, replace it with a new one.

2. If the wire is fine, check the three ports on the servo for any issues.

Note: If the above steps do not identify the issue, please contact our support team for inspection.

II. Precautions

1. When connecting the servo to the control board, ensure the control board is powered off to prevent short circuits and damage to the control board.

2. Do not disassemble the servo casing on your own. If you suspect the servo is faulty, follow the steps above first.

3. Avoid using the robotic arm at high frequency for extended periods. It is recommended to use it for about 30 minutes at a time.

4. The operating voltage range for the servo is 6-8.4V. The servo will not work below 6V and will be damaged if the voltage exceeds 8.4V.