

SV-FFR

Firefighting Robot

English technical reference prepared from the Chinese product document. Legacy contact details have been removed. Numeric values marked [verify] require confirmation before ordering or operation.

****Product Manual****

****Product Model: SV-FFR Firefighting Robot****

****Basic Parameters****

- Dimensions: 770 mm (height) × 770 mm (width) × 1005 mm (length)
- Weight: 85 kg (including battery; battery is quick-release)
- Maximum Power: 2 × 400 W
- Manipulator: 3–6 degrees of freedom (optional); maximum lifting weight after full extension: 5 kg (optional)
- Cameras: One 30x zoom 1080P HD camera, three 720P HD cameras
- Battery Specification: 24V 20AH
- Wireless Video Transmission Range: ≥ 300 meters
- Remote Control Range: ≥ 1000 meters
- Maximum Speed: 0–2.2 m/s, remote-controlled continuously variable speed
- Turning Radius: Zero-turn (pivot)
- Obstacle Climbing Capability: 200 mm obstacles; 38° stairs; 40° slopes; adaptable to grass, sand, snow, gravel, mudflat, and similar terrains
- Operating Time: 3 hours (cruise)
- Protection Rating: IP65
- Chassis Ground Clearance: 127 mm at lowest point
- Effective Swing Arm Angle: 0 to +360° (rotates with the body)
- Maximum Arm Span: 950 mm
- Upper Arm Pitch Angle: 10° to 150°
- Lower Arm Pitch Angle: 20° to 200°
- Wrist Rotation Angle: –150° to +150° (manual; electric is optional)
- Gripper Opening Width: 0 to 160 mm

- Pan/Tilt Pitch Angle: -30° to $+90^{\circ}$
- Pan/Tilt Rotation Angle: 0 to $+360^{\circ}$ continuous rotation
- Driving Camera Pan/Tilt: Fixed view, 170° field of view

****Disclaimer****

Please read this manual carefully before using the product. By using this product, you acknowledge and accept all terms of this disclaimer.

This product is intended for users aged 18 years and above. Under normal power supply and correct connections, it can provide an excellent operating experience. When adjusting parameters or performing firmware upgrades on this aircraft system, we strongly recommend removing the propellers and ensuring normal power supply and correct wiring of the relevant functional modules. Always keep away from crowds, hazardous items, and fragile objects during use.

Shuangjie Technology shall not be liable for any personal injury or property damage caused directly or indirectly by the following:

1. Failure to assemble and use the product according to the manual.

2. Operating the aircraft while under the influence of alcohol, drugs, fatigue, or in poor physical or mental condition.

3. Intentionally or deliberately operating the aircraft to cause harm.

4. Disassembling the product or modifying it with non-Shuangjie accessories, rendering the aircraft inoperable.

5. Injury caused by operator error or misjudgment.

6. Injury caused by abnormal operation due to natural wear, circuit aging, or similar issues.

7. Operating the aircraft while knowing it is in an abnormal working condition.

8. Operating the aircraft under severe weather conditions such as typhoons, hail, or heavy fog.
9. Flying in areas with magnetic interference, radio interference, or government no-fly zones.

10. Flying under poor visibility or when the line of sight is obstructed.

11. Infringement caused by data or image material obtained using the product.

12. Other losses not within Shuangjie Technology's liability.

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Business enquiries

Product selection · Project enquiries · Technical support

SV-FFR



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