



UNIVERSITY OF ARKANSAS COMMUNITY COLLEGE AT BATESVILLE

Bid Specification Solicitation Sheet

Quantity 1: Unmanned Aerial Vehicle (Drone)

- **Specifications:**

- **Aircraft:**

- Dimensions: Unfolded: 637mm x 560mm (including propellers), Folded: 162mm x 363mm
- Height: Unfolded 153mm (including propellers)
- Weight: 1,720g (including standard camera and battery)
- Number of rotor blades: 4
- Intelligent battery: Lithium-ion battery 94Wh, 1 pc
- Operating frequency: 2.412 - 2.477 GHz
- Hovering accuracy (using vision positioning): Vertical: ± 1 m, Horizontal: ± 0.3 m
- Hovering accuracy (GNSS): Vertical: ± 0.5 m, Horizontal: ± 1.5 m
- Maximum pitch angle: 30°
- Maximum angular velocity: Pitch: 80°/s, Yaw: 45°/s
- Maximum ascent speed: 3m/s
- Maximum descent speed: 2m/s
- Maximum takeoff weight: 2,000g
- Maximum speed (no wind): 15m/s
- Operational limit altitude: 2000m
- Maximum airspeed: 15m/s
- Max flight time: With standard camera, wind speed 8m/s: 25min. Without standard camera, wind speed 8m/s: 29min
- Optional Camera: Infrared camera + visible camera, Multispectral camera, Optical zoom camera
- Ingress protection: IP43 (with camera, gimbal, and battery)
- GNSS: GPS + QZSS + GLONASS + SLAS
- Operating temperature: 0°C to 40°C
- Optional items: LTE Comms Module, Spare Battery, Vision System
- **Obstacle detection range:** Forward: 10m, Up: 5m, Down: 5m
- **Obstacle detection angle:** 70° horizontal, 40° vertical
- **Obstacle detection frequency:** Forward: 10Hz, Up: 10Hz, Down: 10Hz
- **Operating environment:** Adequate lighting and clear texture

- **Remote Controller (Standard):**

- Operating frequency: 2.412 to 2.477 GHz
- Maximum distance: 4km
- Battery life: Up to 4 hours
- Operating temperature: 0°C to 40°C
- Security: AES encryption method

- Supported Mobile Devices: Android™ 4.1 or higher
- Confirmed models: Sony Xperia™ 5, 10 III
- **Visible Camera (Standard):**
 - Number of effective pixels: 20 megapixels
 - Still image shooting method: JPEG / DNG / JPEG+DNG
 - Still image shooting quality: Compression: Superfine / Fine / Normal
 - Resolution: 20MP / 15MP / 10MP
 - Movie recording method: MOV / H.264
 - Movie recording quality: 4K: 30fps, 2.7K: 60fps / 30fps, Full HD: 120fps / 60fps / 30fps HD: 60fps / 30fps, nHD: 240fps / 120fps / 60fps / 30fps
 - Video recording time: Available recording time: 60 min. Auto-split: OFF / 1 / 3 / 5 / 10 min. (Split by 4GB in the case of FAT32)
 - Sensor size: 1 inch
 - Shutter system: Mechanical shutter system
 - Focus mode: Mode: Single AF / Continuous AF / MF Area: Multi AF / Spot AF
 - Exposure compensation: -2EV to +2EV (step of 1/3EV)
 - Recording media: microSD UHS speed class: ≥ U3 or V30 Video class: ≥ V30
 - Security: Data can be encrypted as it is recorded on the recording media. Encryption can be enabled/disabled.
- **Camera Gimbal:**
 - Gimbal mechanism: 3-axis
 - Operable range: Pan: ±85°, Tilt: -115° to 45°
 - Maximum speed: Pan: 60°/s, Tilt and roll: 100°/s
 - Control accuracy: ±0.02°
 - Switching method: One-touch camera switching

Quantity 1: Multispectral Camera Sensor

- **Specifications:**
 - **Number of Effective Pixels:** Approx. 20 megapixels (5 MP/wavelength)
 - **Sensor Size:** 1 inch
 - **Shutter System:** Mechanical shutter system
 - **Acquisition Wavelength:** NDVI mode: 550nm, 660nm, 850nm
 - **Filter Size:** Filter diameter: 30.5mm, Thickness: 1mm, Weight: 4.4g
 - **Recording Media:** microSD UHS speed class: > U3 or V30
 - **Security:** Encrypted data can be recorded on recording media. Encryption can be enabled/disabled.

Quantity 1: Smart Controller Specifications:

- **Specification:** Smart Controller, with a built-in screen and software, designed specifically for use with the associated drone, NDAA compliant.