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### **Bomb Robot Project Specifications 2.9.18**

The Summit County Emergency Management Agency is requesting bids for the Ashland County Bomb Robot Project to replace an existing robot. The Ashland County Bomb Squad currently responds to calls in seven counties, including Erie, Huron, Richland, Crawford, Holmes, Knox and Ashland. The purchase of a new bomb robot will allow effective response to suspicious devices and/or I.E.D's.

#### **GENERAL REQUIREMENTS**

All specifications contained herein are considered minimum requirements for the delivery of a "new" bomb robot.

#### **BID RESPONSE**

You must upload a set of detailed contractor's specifications and an itemized quote in the General Attachments.

The following specifications and characteristics must be met with no deviations. These are the minimum accepted specifications for the system.

Estimate: \$97,915.00

#### **Ashland County Bomb Robot Project:**

- **Robot to include:**
  - **Dimensions:**
    - Width shall not be greater than 20".
    - Length shall be no longer than 36".
    - Height shall be no taller than 25".
  - **Gripper:**
    - The gripper shall be able to open at least 10 inches and be able to grip up to 66 inches in height.
    - Robot shall have five axes of movement.
  - **Lift:**
    - Robot shall be able to lift up to 45 lbs. with arm retracted, and 18 lbs. with arms fully extended.
  - **Drag Capacity with Gripper:**
    - Robot shall be able to drag up to 200 lbs.
  - **Reach:**
    - Robot shall be able to reach at least 3.5 feet under vehicles.
  - **Pan Mount:**
    - Robot shall be capable of mounting and firing 1 Pan Disrupter.
    - Robot shall be able to fire its Pan Disrupter through the windows of 90 percent of vehicle items located on seats, floorboards and/or cargo area.
  - **Laser Sighting System:**
    - Robot shall have laser sighting system to accurately aim the Pan Disrupters.
  - **Firing Circuits:**
    - Robot shall have a minimum of 1 firing circuit.

- **Cameras:**
  - Robot shall have a minimum of 3 cameras.
    - One camera shall be a designated color drive camera with IR capability.
    - One camera shall be a rear facing camera with IR capability.
    - One camera shall be capable of 360 degrees of continuous panning with a 180 degrees tilting feature.
  - Robot shall be capable of thermal imaging.
- **Night Vision:**
  - Robot shall have night vision camera with IR capabilities.
- **Mobility:**
  - Robot shall be capable of driving over wide variety of terrain, such as sand, mud, dirt, gravel, grass, rubble, uneven terrain, as well as normal interior surfaces.
- **Speed:**
  - Robot shall be capable of driving up to 5 miles per hour.
- **Stairs:**
  - Robot shall be capable of climbing and descending standard seven (7) inch riser step stairs, while armed with Pan Disrupters.
- **Frequencies:**
  - The robot shall be capable of being operated by a digital signal.
- **Audio:**
  - Robot shall have 2-way audio.
- **WMD Sensors:**
  - Robot shall be capable of mounting WMD sensors on it.
- **Fiber Optic Cable:**
  - Robot shall be capable of operating by fiber optic cable, which shall be self-winding.
- **Batteries:** Shall be able to be recharged without having to first remove them from the robot. Shall come with a battery charger for robot's batteries, as well as the control unit's batteries.
  - One additional battery charger for robot is requested.
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- **Video Transmitter:**
  - Robot shall be capable of digital video recorder.
  - Robot shall have a viewable detection range up to 750 feet.
- **Desired Features:**
  - Wireless connectivity, such as Bluetooth or equivalent
  - Motorized, telescoping mast
  - Wireless, hand-held controller with heavy duty case
  - Auxiliary pole camera
  - Foldable, lightweight