The Guardian Angel "Heroic Acts, Taking Flight"

Loehrlein, Ryan

Law enforcement agencies are always looking for new ways to protect their officers in the most efficient way. To ensure the safety of law enforcement officers in hostile situations new devices need to be developed for practical applications. The potential way to secure the safety of officers is to implement drones that have universal features. To provide vital information this drone must be able to enter a building to detect potential threats, fly around building perimeters, and have multiple sensors to send back information such as telemetry, motor temperature, sonar readings and live video feeds. To create these various features the drone will be created by using 3D printers, laser cutting acrylic, and multiple aviation systems such as NAZA and Spektrum. Such a drone has the possibility to become the future for law enforcement agencies by integrating different features. This drone designed and constructed in this project is a hexacopter that has the capability to fly efficiently with a load of multiple sensors, cameras, and send video live over a secure network. Law enforcement agencies will be able to secure the safety of the officers by integrating this new drone, the Guardian Angel, into their existing intelligence operations.