In 1943, the Royal Air Force's Pathfinder system dramatically enhanced bombing accuracy, combining radar with target indicators to overcome enemy jamming. The Pathfinder method has largely been forgotten because GPS has dominated navigation, but in a modern GPS-denied environment it has many advantages. Building directly on Pathfinder, but using modern information theory and Bayesian methods, Auto617 introduces UAV-Pathfinder, a cutting-edge system designed to solve the modern battlefield's greatest challenge: guiding uncrewed aerial vehicles (UAVs) to their targets in GPS-denied and Electronic Warfare (EW)-contested conditions.



UAV-PATHFINDER

Revolutionizing Precision Targeting in GPS-Denied Environments







The Problem



Today's small UAVs face significant threats from electronic warfare. Jamming destroys GPS signals, rendering drones ineffective and forcing operators into dangerous proximity to targets. With up to 75% of drones lost in Ukraine due to jamming (according to General Pierre Schill, the French army's chief of staff), a new approach is critical for the success of small UAVs on the modern battlefield.

The Solution: UAV-Pathfinder

Auto617's UAV-Pathfinder offers an unjammable, cost-effective targeting system:

- Advanced Target Indicators: Deploy information-theoretic markers resistant to destruction or counterfeiting
- Optical Guidance: Achieve sub-metre accuracy without GPS or A.I.
- Ideal for asymmetric artillery threats. Works best for fixed or troublesome-torelocate targets like towed artillery and radar systems.
- **Electronic Warfare Resilience**: Full Faraday-cage enclosed UAV electronics, impervious to electromagnetic interference.
- Low Cost, High Impact: Adds only a few hundred dollars to the cost of each UAV, enabling precise operation for drones priced under \$2,000.

Key Advantages

- Reliable in Adversity: Operates seamlessly where GPS and video feeds are jammed.
- Swarm-Ready: Scalable for use with UAV swarms or loitering munitions.
- Rapid Deployment: Marker deployment and targeting happen quickly, reducing enemy response time.
- Proven Performance: Markers can't be faked or easily destroyed, ensuring mission success with minimal resources.

Join Us

Based in the UK, **Auto617** is seeking collaborators, co-developers and licencees worldwide to bring our patent-pending **UAV-Pathfinder** system to market. Together, we can redefine UAV targeting systems and deliver unmatched precision on today's complex battlefields.

Contact Auto617

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