

The Weevil Project: British Innovation for Risk-Free Clearance

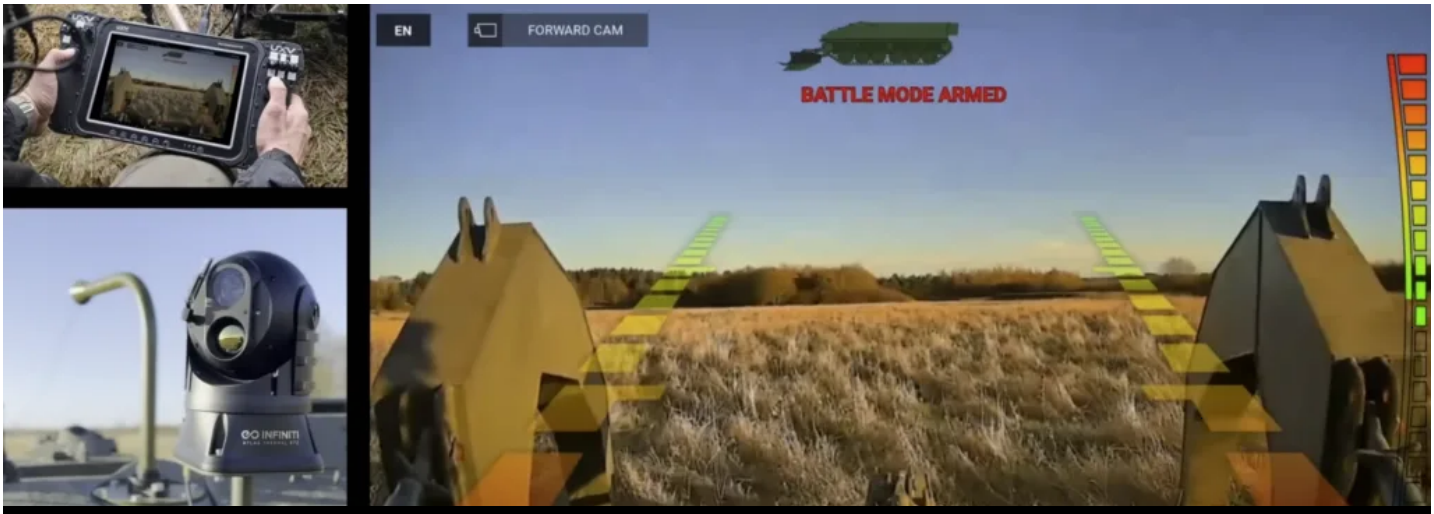
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In the landscape of modern land operations, the protection of military personnel is an absolute priority. To meet this need, on April 16, 2025, a technological demonstrator was unveiled marking a step forward in the war against mines: an infantry fighting vehicle (**IFV WARRIOR**) completely converted for **unmanned** demining operations. The project is the result of collaboration between **Pearson Engineering**, a British company specializing in military engineering equipment, and the **Defence Science and Technology Laboratory (Dstl)** of the UK Ministry of Defence.

The new system has been named **Weevil**, a name that evokes agility and operability in hostile environments. The WARRIOR has been equipped with a variant of the **Full Width Mine Plough** , a full-width demining blade already adopted on the engineering vehicle **TROJAN**, the breacher version of the **CHALLENGER 2** tank. The plough is designed to “push” mines laterally in the ground, creating a safe corridor for troops or vehicles to pass through. Unlike the TROJAN, which

requires a crew of three operating in a full danger zone, the WARRIOR Weevil can be completely remotely controlled, **eliminating the risk for operators**.

The use of anti-personnel and anti-tank mines in conflicts like the ongoing one in Ukraine has demonstrated how they remain a deadly tool to slow down or stop advances. Therefore, a vehicle capable of **autonomously intervening** in minefields represents a strategic innovation with immediate operational impact.



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2. The BEACON System: Modular Remote Control for Complex Scenarios

The technological core of the Weevil project is the **BEACON** system, an advanced remote control platform developed by Pearson Engineering. This system transforms traditional armored vehicles into remote-controlled platforms, ready to operate in high-threat environments without endangering human lives. BEACON is designed to be **modular and quickly installable**, making it compatible with a variety of military vehicles already in use, without the need to build new platforms from scratch.

The system is available in two main configurations. The first, called “**portable**”, allows a dismounted operator to control the vehicle remotely via an **Operator Control Unit**, a sort of advanced console for driving and system activation. The second configuration is **more robust**, with a command station carried on another armored vehicle, designed for prolonged missions or more complex operations.

Thanks to the integration of **high-resolution cameras**, proximity sensors, and secure communication systems, the vehicle can be remotely guided with extreme precision even in

complex scenarios and at **several miles away** from the operational theater. The Weevil is not limited to carrying a demining blade: it can also be configured with **other front equipment** from Pearson Engineering, such as the bulldozer blade or devices for **cleared lane marking** (Lane Marking System), making it versatile and adaptable to different tactical needs.

This approach perfectly addresses the growing need of modern armed forces to **reduce direct exposure to enemy fire** during engineering and logistical operations, without sacrificing effectiveness and speed.



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3. Towards the Future: Operational Tests and Strategic Prospects

The first tests of the Weevil system took place in a **simulated minefield in Northumberland**, UK, where it demonstrated its ability to safely clear stretches of hostile terrain. The trials confirmed the **system's robustness**, the reliability of remote guidance, and the efficiency of the demining plough, paving the way for the next phase: **operational tests with the British Army**, in increasingly realistic scenarios.

The declared goal of the Ministry of Defence is to **push the system to its limits** to fully understand its potential in terms of tactical use. The long-term perspective is to make the **Weevil system adaptable to other armored vehicles**, expanding its use in international missions, complex urban contexts, or areas where the presence of unexploded ordnance is massive.

In the joint Pearson/Dstl statement on April 10, 2025, the **UK Minister for the Armed Forces, Luke Pollard**, stated:

> *“It will be a long-awaited day when we no longer have to send our soldiers directly into danger to clear minefields. This system can tackle the deadly threat of mines in the most challenging contexts, remaining controlled from kilometers away. It is a concrete example of British innovation, serving the protection of our troops.”*

Alongside him, **Major Andrew Maggs**, military advisor to Dstl and pioneer of the Weevil project, added:

> *“Weevil is the perfect combination of proven technologies and modern innovations. By enhancing existing vehicles with new capabilities, we can give our military a tangible advantage in missions where time and safety are critical factors.”*

The system thus represents **a new frontier for military engineering operations**, combining technological innovation, intelligent reuse of existing platforms, and an increasing focus on personnel protection. The Weevil is not just a demonstrative project, but a **concrete promise** for a future where the minefield will no longer be an insurmountable obstacle, but just another challenge to overcome — **remotely and with surgical precision**.



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