DEFRA TaMaCare

Tactical Environmental Mapping for Battlefield Casualty Care

Context

On the battlefield, injured soldiers can face significant delays in medical treatment or evacuation due to ongoing hostilities and treacherous terrain. Traditional methods of casualty care rely on limited information and may put medics at unnecessary risk: medics often lack a comprehensive picture of the battlefield, hindering their ability to locate and prioritise casualties while minimising exposure to threats.

Objective

TaMaCare aims to revolutionise battlefield casualty care by creating a real-time digital twin of the frontline. The proposed digital twin aims to provide medics with a clear view of the battlefield, encompassing the location of injured soldiers, their vital signs, and any structures or potential dangers present in the vicinity.

Methodology

3D Mapping: Creating a 3D representation of the battlefield.

Casualty and Threat Detection: Automatically identifying and locating injured soldiers and potential threats (explosive devices) with visible and infrared cameras.

Real-Time Localization and Health Monitoring: Establishing a network of Ultra-Wideband (UWB) anchors and tags to track the location of casualties in real-time.

Partners

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