The Ethics of Vision AI on the Battlefield

A pilot study on ethical decision making in AI supported military scenarios
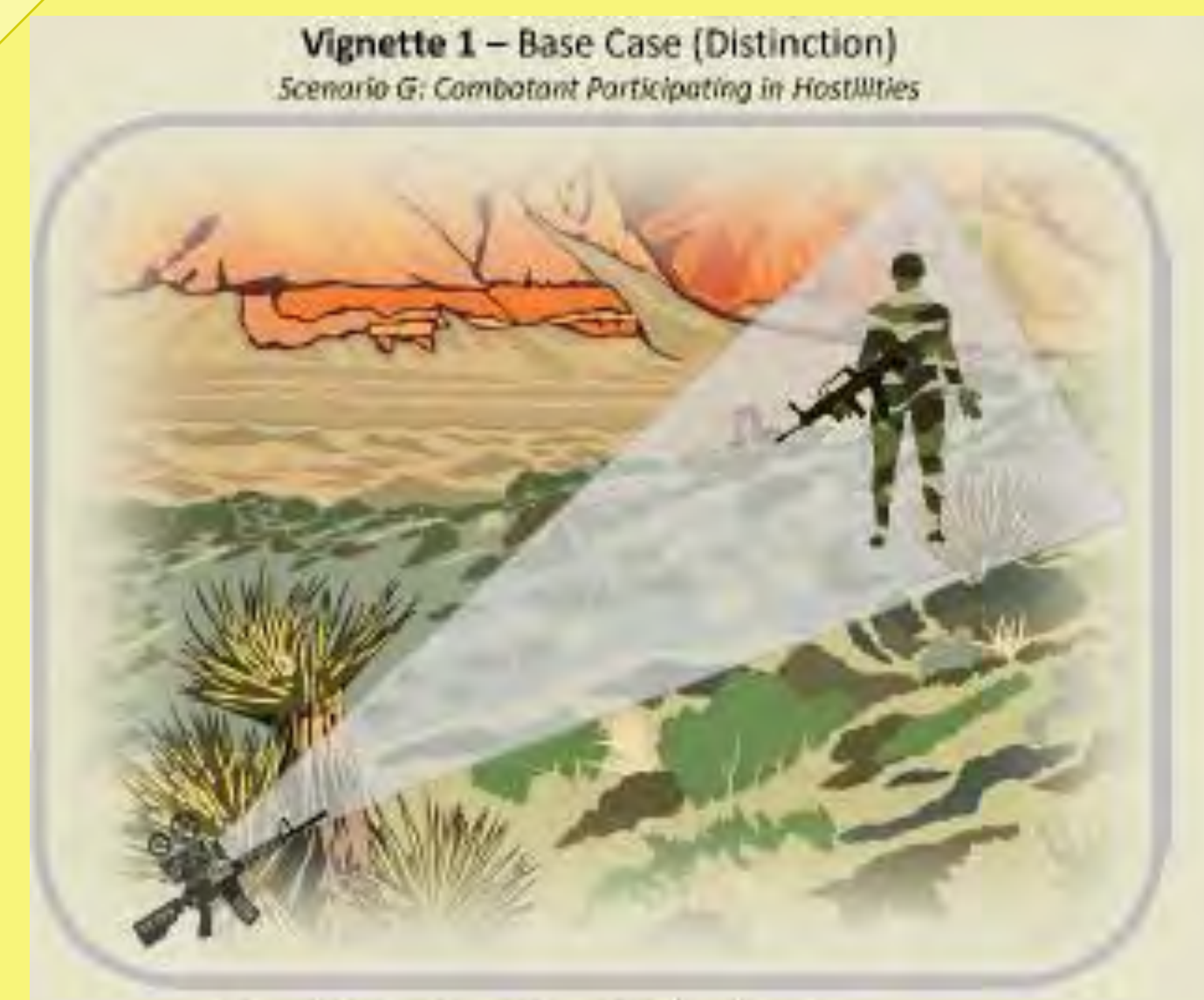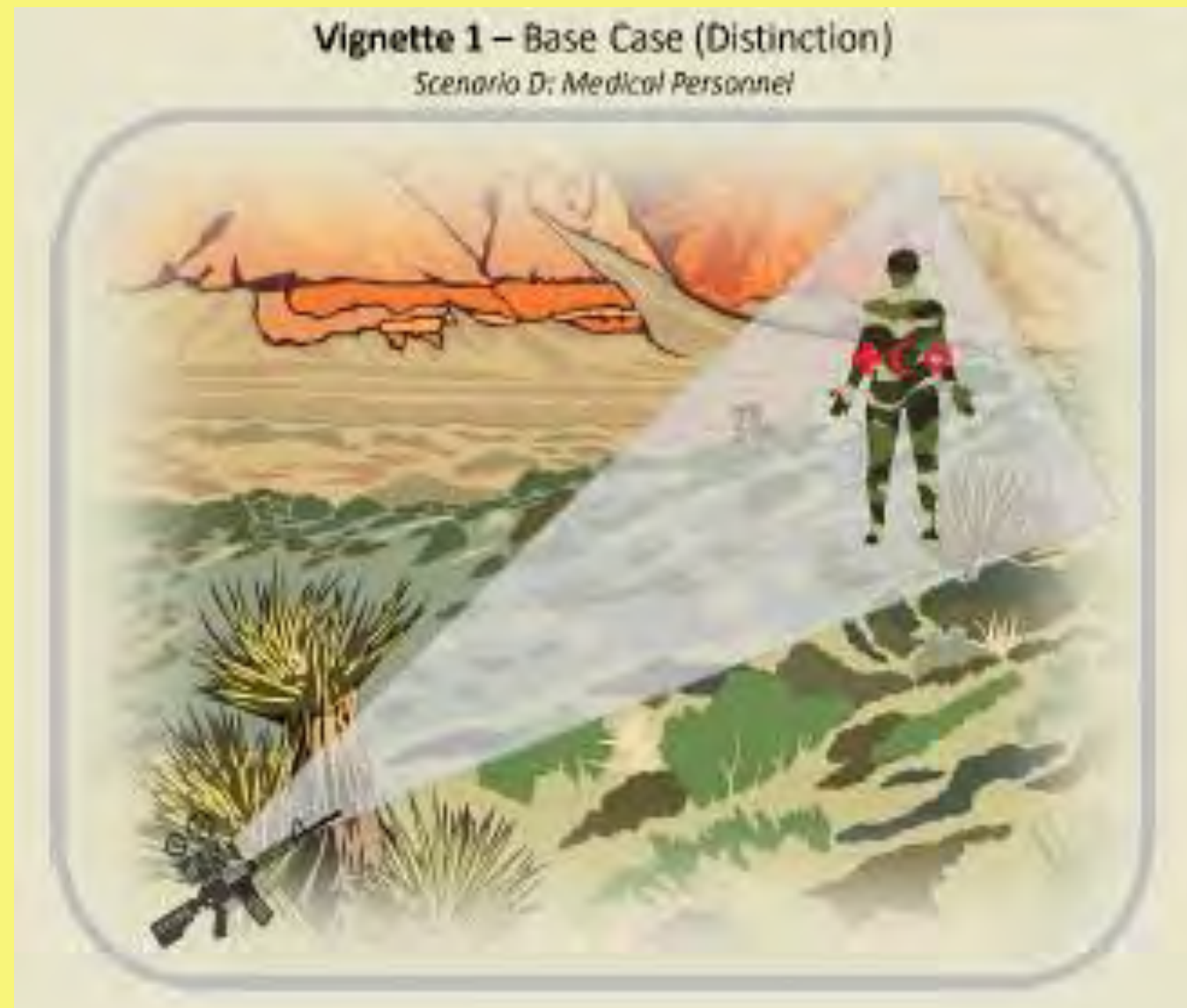
Live role playing battlefield scenarios with ethically relevant features (weapons and protected symbols) are played out

Vignette 1 – Base Case (Distinction)
Scenario D: Medical Personnel

Vignette 1 – Base Case (Distinction)
Scenario G: Combatant Participating in Hostilities
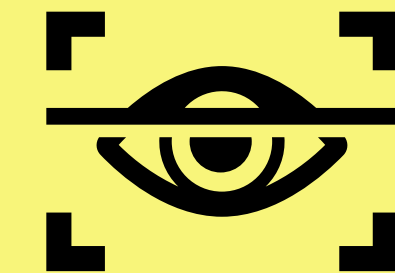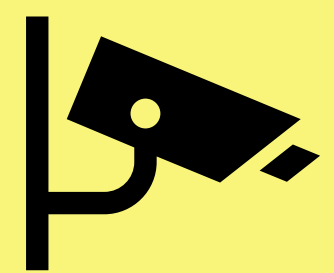
A camera on a disabled remote weapons system i.c.w. vision AI for **object detection** and **action recognition** presents the scenarios in an annotated form on a screen to the remotely present human operator:
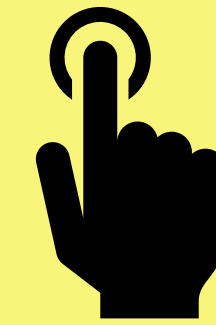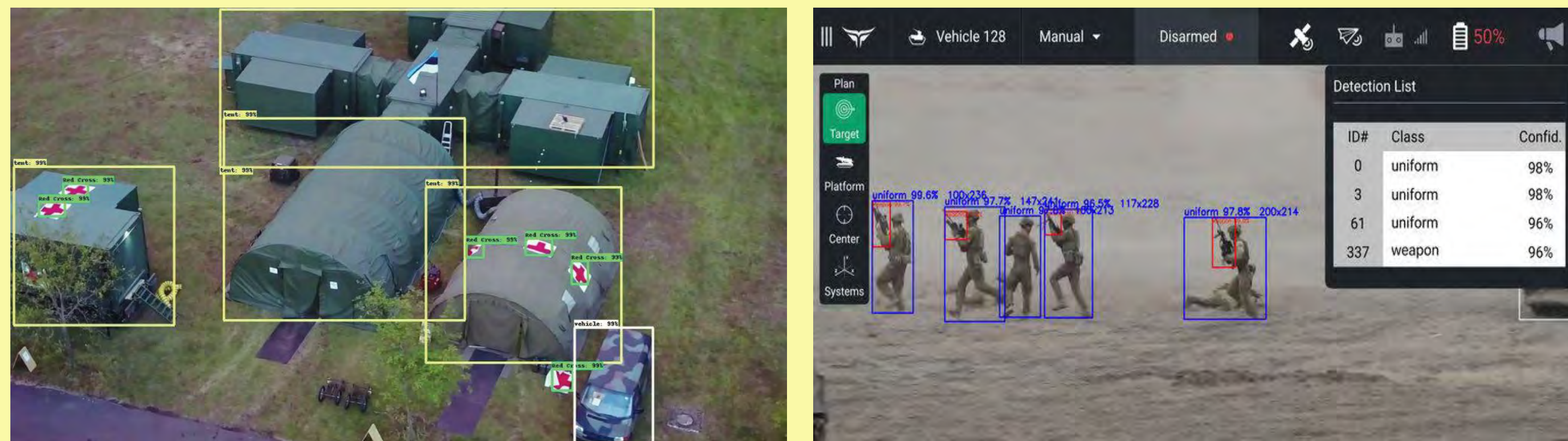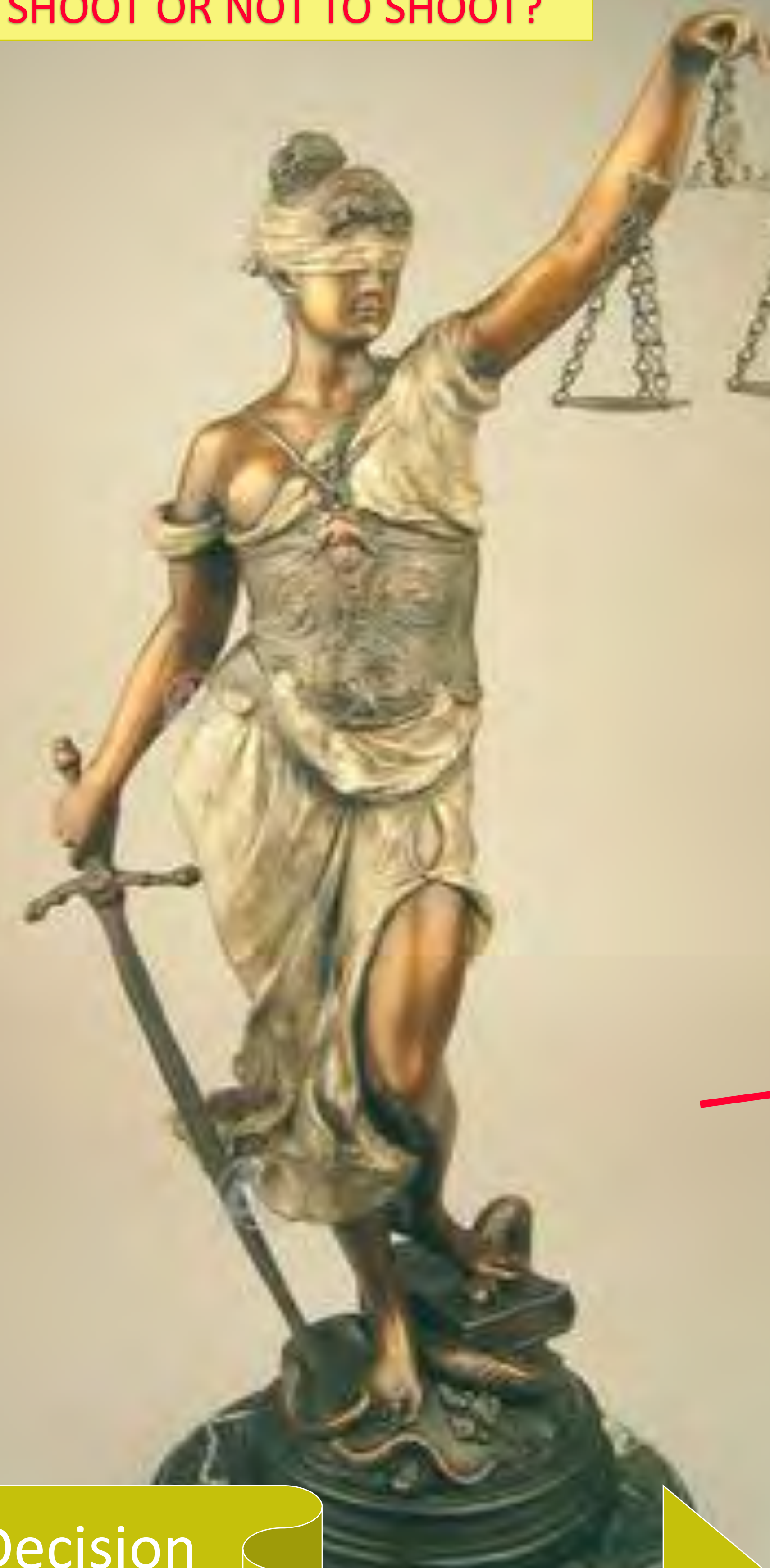

Human operator decides to shoot via remotely controlled disabled firing button or not shoot based on camera input

TO SHOOT OR NOT TO SHOOT?

Ethical Decision Making

Technical Design Challenges

Army issues instructions for painting M16s, M4s

"Camouflage paints provide for reduced visual detection and enhanced warfighter survivability via neutral, non-reflective, and predominantly non-black colors."

https://www.army.mil/article/39406/army_issues_instructions_for_painting_m16s_m4s

Will AI vision technology fail if weapons are painted non-traditional colours?

In some cases - YES

Expected outcomes:

- To better understand AI on desired and actual behaviour of soldier

- To better understand the conditions for AI decision support systems in a military context.

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