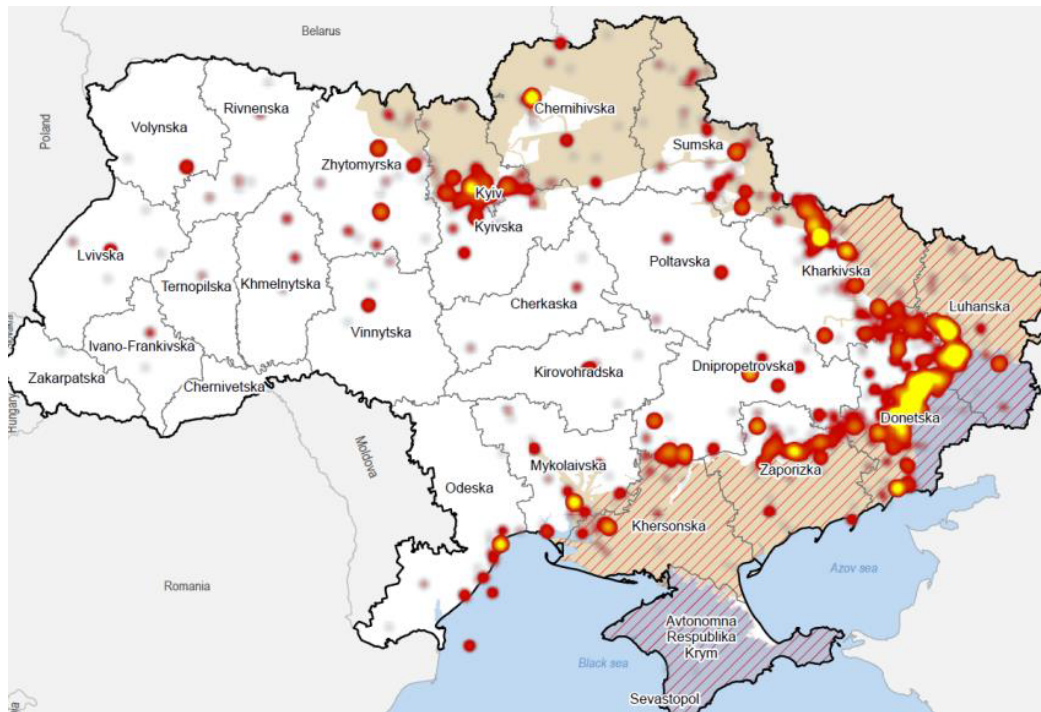


Preliminary Information

Motivation: Due to a Russian invasion of Ukraine, thousands of civilians were killed and injured as a result of landmines left by Russian forces. It will take many decades to remove landmines. How big is Ukraine you might ask? It is almost as big as Alberta province!



Mine action related incidents density. Ministry of Defense of Ukraine and the SSTS Mine Action Centre, 2022.

High Level Overview: An autonomous robot scanning a designated area for landmines and reports identified mines to the operator

Requirements:

- XInC2 MCU - designed by Eleven Engineering
- Battery operated
- Must operate for at least 30min continuously
- Rang of at least 50m
- Operator must manually select an area to be scanned - must be easy to do !
- Either a web based or mobile application used to configure the robot
- Remote camera feed (pseudo optional) - live view
- Target users - professionals and amateurs

Hardware/software share: Hardware - 30%; Software and firmware - 70%

What Eleven provides:

- Budget: \$300 (CAD) for Fall and Winter semesters
- A Remote Control car (from Oleksandr)