

TrekAce® *Lightsaber*

The TrekAce® *Lightsaber* establishes Common Situational Awareness for the tactical Level, optimizing its survivability and lethality!

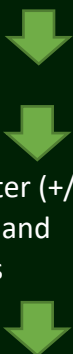


The *Lightsaber* solves critical operational challenges:

- **Pointing and Directing** – Existing solutions do not provide holistic capability, for the tactical level or the individual warrior, of pointing and directing peers at targets.
- **Reaction time** – Engagement with identified targets takes too long due to lack of real-time & clear tactical flow of information.
- **Accuracy** – Directing squads/teams to targets (E.g., house, alley, cover, enemy, friendly force) using verbal explanations or by hand gestures are frequently misunderstood and are literally misleading.
- **Perspectives** – Directions given by C4I or by drones are generated from different perspectives of the ones of the warriors on the ground.
- **Friendly fire** – Caused by misunderstanding of peer's location due to the reasons described above
- **Location** – The fundamental necessity for all C4I systems is the availability of GPS. At GPS denied environments, directing, and pointing the tactical level, goes back to verbal communication and hand gestures.
- **Multi sensorial systems** – Available targeting systems are complicated, expensive, and requires long and costly integration.
- **Target acquisition** – Generating fresh and immediate targets and having them uploaded to the C4I is a complicated process, executed by expensive technologies (UAVs, drones, Etc.) or by handful elite special forces. To generate more targets with less investments, there is an immediate need to have the tactical team contribute to the strategic effort of target acquisition.

How does it work?

1. **Obtaining user's accurate location** – TrekAce® navigation apps (**Advanced** and **3D**) provide the user with accurate positioning (current coordinates), with or without GPS.
2. **Obtaining target's bearing** – TrekAce® navigation apps provide the user with his accurate Bearing/Azimuth and thus bearing he's facing/looking/aiming at.
3. **Obtaining target's range** – Compatible legacy rangefinder or even a civilian one, provides 0.5-meter (+/-) accuracy at relevant distances (up to 1 Km.). Using legacy and/or civilian rangefinders enable prompt and vast distribution with no training costs, no overweight issues and seamless integration with TrekAce's implemented offerings (and with legacy IC4I systems).
4. **Obtaining target's coordinates** –
 - 4.1 TrekAce's Advanced and 3D navigation apps provide the user's (i) location, with or without GPS, and (ii) the bearing he is facing/looking at, hence the bearing of the target is in direct relation to the user's body orientation
 - 4.2 The rangefinder issues the distance from the user's location to the target
 - 4.3 **And now, crossing the bearing and range of the target produces the target's coordinates.**



Issuing tactical commands

- Once the target's coordinates are obtained, the user receives a tactile confirmation by the **Core** sleeve (and an onscreen notification if applicable - HUD)
- The user can now choose the tactical commands he wishes to issue
- On the **Core** robotic sleeve, there are 4 PlayStation-like buttons, each button issues a predefined command. E.g., **Go-There! Target-There! Upload target to C4i!** Etc.

Receiving the tactical commands

- Once the command is issued, it's being sent through the team's MESH network
- The commands are being translated to intuitive tactile commands by the TrekAce® **SOUL** app
- The **Go-There!** Command will issue **Core's** navigation tactile commands; **Target-There!** Will issue **Core's** "Target" command at the direction of the target; the **Upload target to C4i!** will upload the target's coordinates to the legacy C41 system.

