

RUAG training for military operations in urban terrain (MOUT)

RUAG Defence – world leading provider of overall system solutions supporting the military training and education.

One of the main goals of modern armed forces is to train effectively to fulfil the mission tasks in the urban terrain. Thanks to the RUAG Simulation & Training solutions, armed forces can train in the specially prepared training facilities as they would in a real fight. To achieve a maximum level of realism, certain simulators will be used.

Besides battle field effect simulators such as Flash-Bang-Smoke devices and all kinds of weapon simulators, also an indoor and outdoor localisation system will be applied.



RUAG live combat training facility for urban operations



Graphic User Interface of the RTLS Autonomous Indoor and Outdoor Navigation system

RUAG solution offers the high degree of realism of the exercises and a high efficiency in training thanks to:

- Soldiers are equipped with simulation devices.
- All simulated weapon engagements are evaluated and displayed.
- The instrumentation of the MOUT range allows the instructors to monitor the tactical behaviour of the soldiers and the unit on a tactical map.
- The behaviour of the individual soldier will be controlled by cameras and indoor localisation systems.
- All tactical data and video sequences are stored automatically and can be used by the instructor for the After Action Review.

The increased population and accelerated growth of cities predefine a character of today's military operations. Urban areas are expected to be the future battlefield and combat in urban areas cannot be avoided.

The combat in built-up areas is very different from the combat in the open at both the operational and tactical level. Built-up areas consist mainly of man-made features such as buildings, streets and subterranean systems. These features of urban terrain create a variety of tactical problems and possibilities. To ensure that a military unit can operate effectively in the MOUT environment, its observation and direct fire plans must address the ground-level fight (in streets and on the ground floor of buildings), the aboveground fight (in multistore buildings), and the subterranean fight.

This all requires a smart solution from the LIVE Simulation, what as a goal has to support the training with the most realistic effects representation.

**Together
ahead. RUAG**

Scenario

Starting from basic skills as enter, clear or fortify building, urban patrolling, IED awareness, check point or humanitarian operations and civil disturbances, up to offensive operation or three-block-war in urban terrain. All those scenarios can be train in the RUAG MOUT training centres.

According to the training needs, a certain level of instrumentation can be chosen, from mobile to fix installation of whole city. Beside battle field effect simulators such as Flash-Bang-Smoke devices and all kind of weapon simulators also an indoor and outdoor localisation system will be applied.



Exercise in RUAG MOUT facility



Indoor Localisation System with wrist-mounted display



Training equipment Gladiator in use in MOUT facility

Gladiator – train today for tomorrow's conflicts

The harness has been specially designed to ensure that it can be configured for the widest possible variety of training scenarios, whether engagement in open terrain, urban operations or joint arms actions. Here are just some of the features of the Gladiator:

- Simulated precise hit by laser weapons
- High long range accuracy
- Health status and position
- Differentiated vulnerability
- Realistic simulation of weapons with a blast area (e.g. IED)

Gladiator – the latest technology

Gladiator is a personal harness for realistic, simulated live training. Special units, the police and combat troops can be trained from group to brigade level. Gladiator can be used to train in various fire and movement scenarios, in open as well as in built-up terrain, without deploying live ammunition.

Gladiator has a modular structure

Starting from the Basic variant, Gladiator can be extended in several modular stages.

Ergonomic design for simple operation

The development of Gladiator's development focused on training efficiency user-friendliness, wearing comfort and robustness.