



Multimodal Interactive Trainer (MINT)
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Canadian Police Knowledge Network
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National Research Council Canada




Conseil national de recherches Canada



National Research Council of Canada

- **Premier Research and Technology Organization agency of the Government of Canada**
- **4000 employees, 1000 guest workers across Canada**
- **Focussed on national priorities, including:**
 - Increasingly complex security challenges
 - Changing sense of communities
 - Economic growth and sustainability
- **NRC brings its competencies to bear on training, such as:**
 - Educational psychology, learning design, cognitive modelling, human-computer interaction, learning and collaborative technologies, serious gaming, natural language processing, knowledge discovery, 3D data acquisition, modelling and visualization.



Mobile Interactive Trainer (MINT)

- **Developmental Technology Platform designed to reduce training costs, integrate mix of Commercial-Off-The-Shelf and custom technologies**
- **Scenario based training in immersive virtual environments**
 - Mobile units, remote training, speech recognition, simulated suite of lethal and non-lethal weapons, tablet-based control interface for instructors, easy reconfiguration of physical layout
- **Course of fire (virtual shooting range)**
 - Combination of various target shapes and colours; performance reports; instant tutor feedback; multiple shooting lanes
- **LaserTrak and LaserGun**
 - Interaction on large screens by using laser pointing devices attached to training weapons.



MINT – Next Steps

- **NRC here to form partnerships to identify your needs, prioritize development efforts, validate effectiveness, identify sustainable deployment models (e.g. CPKN)**
 - Work towards certification of simulator
 - NRC has track record and tools to set up partnerships
- **Possible developments:**
 - Unit “in-a-box” for shipping to remote locations
 - Enhanced scenarios, multi-modal interfaces, avatar movements and behaviours, weapon suites
 - Enhanced configurable and customizable simulated environments
 - Detailed visualisation and performance measures

