

# Defining Human role in the use of lethal force

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# 1. Our position to LAWS

- Not to develop fully autonomous weapons systems with lethality (directly kill to human beings)
- Importance of Meaningful Human control and certain implementation of the Guiding Principles
- International rule making with seeking balance between humanitarian consideration and security perspective

## 2. How Japan considers Human-Machine Interaction

- Weapons systems with lethality accompanied with meaningful human control (MHC).
- MHC is a concept that could be used as a premise in attributing responsibility for various effects caused by them.
- There is a wide range of views on where and how much MHC is necessary in the life-cycle of weapons systems.

# I. Human elements

- ✓ How human have involvement with weapons systems (machine) on their lifecycle?  
Degree and stage of human involvement, depends on technologies and operational context
- ✓ Based on the present technological level....  
Retaining human supervision of commander in some degree, to ensure chain of command.
- ✓ Degrees are depends on domains(ground, surface, underwater, aerial) and performance.  
Considering relation with “constrainability”
- ✓ It should not be prejudiced the degree for assuring technological development and peaceful uses.

## II. Machine element

- ✓ Important points to research & develop weapons systems, Development with appropriate system-integration
- ✓ Comprehensive understanding of risks through cooperation between operators and engineers.
- ✓ Risk management by engineers through understanding about operational environment and technological maturity (of operators).
- ✓ Extensive technological and operational testing and evaluation (prediction for condition of facing imminent risks and effects of countermeasures)
- ✓ Tracking evaluation for “lesson-learned” during training, and improve comprehensiveness of risk assessment by reflecting results

### 3. Hint to elaborate and develop the Guiding Principles: ISO13482, AI guidelines

#### A) ISO13482

- ✓ Safety requirements for personal care robots
- ✓ Utilizing emerging technologies for social welfare
- ✓ Minimizing risk with the ISO to maximizing the benefit
- ✓ Risk assessment and risk reduction process in R&D

3. Hint to elaborate and develop the Guiding Principles:  
ISO13482, AI guidelines

## B) AI utilization guidelines (Japan)

- ✓ 10 Principles of utilization of AI
- ✓ matters that should be taken into consideration in AI utilization
- ✓ provide explanations on concrete measures expected to be taken for the achievement of them<sup>10</sup>



# Conclusion

- Human Element
  - ✓ Various discussions and various approaches
- Importance to incorporate with the views of private sector and external experts in the GGE
  - ✓ in order to promote discussion
- Tokyo seminar: bridging the GGE to the 2021 RevCon.