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Verification Challenges

1. Ability to evaluate human trust in combination with autonomous system performance

2. Ability to inject virtual targets/objects in parallel with the live environment to evaluate system responses to dangerous scenarios in a safe and efficient manner

3. Ability to discover scenarios/sequences that trigger emergent or unanticipated behavior

More Challenges

4. Ability to measure and quantify an autonomous system's experience level and adjust expected test outcomes

5. Ability to evaluate autonomy's understanding of human intent and awareness (man-machine collaboration)

6. Ability to evaluate autonomy's response to adaptive and intelligent adversaries (think military or highway driving☺)

Introspection is Key

- Key to all of these abilities is a standardized, consistent interface to examine the internal decision making and knowledge store of the autonomous system