Multi-Robot Multi-Video Public Safety Intelligence

System Evaluation

IRB#: XXXXXX

Today's process

System Introduction	Q & A	System Usage Session	Interview

You can chime in ANYTIME you want while in the interview.
You can choose to turn on/off your audio/video as you prefer throughout the interview.
It will take roughly around 1 hour.

#1. System Introduction

Main system components

- Robot cameras
- Main screen
- Timeline
- Situational overview / descriptor-based search
- Workspace

#1. System Introduction

Robot cameras

- Select a video batch (day/night).
- See/select videos.

Main screen

- Three modes: Combined/Maps/Videos
- How to use "Video Debrief"

Timeline

- Use timeline to select robots and event video clips.

#1. System Introduction

Situational Overview

- Filtering events
- How to see each event
- Review/Workspace/Share

Descriptor-based Search

- Search people
- Search vehicles

Workspace

- Saved events: see/edit the saved events in workspace
- Shared events: share the events with the team

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Try the system.
If you have any questions, let us know.

Today's process

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#3. System Usage Session

1. **Three scenario-based usage**
2. Free usage

#3A. Command and Control Support

Handling an Urgent Call

Scenario

While monitoring ongoing patrol robot feeds around the XXX campus, you receive an emergency call **at 11:20 AM** reporting a **fight** that occurred **several minutes earlier on a bridge in the southern part of campus**.

You must quickly locate relevant visual evidence while managing multiple robot feeds and detected events.

Your Goal

- Quickly find visual evidence related to this reported event.
- Use any tools available (e.g., timeline, map, situational overview) to locate relevant video segments.
- Save relevant findings into your **Saved** Space for personal review.
- If evidence is critical and verified, share it into the **Shared** Space to support team response and decision-making.
- Add brief notes to each saved item explaining its relevance to the emergency incident.

#3B. Safety Monitoring

Routine Patrol Review

Scenario

At the end of a regular patrol shift, the robots have detected a variety of events, including both minor anomalies , suspicious activities and crime-related.

As part of your daily duties, **you are responsible for reviewing and validating** all these events (**choose at least 2 robots** within your interest).

Your Goal

- Find the **false alarm and critical noticeable events** based on your judgment.
- **Save any important findings into your workspace**, and add notes summarizing your observations and suggested next steps if needed.
- **Share events that need further work with team**.

#3C. Descriptor-based Searching

Based on Witness Descriptions — Suspect

Scenario

A student reported that he was attacked and had his phone stolen. The suspect was described as wearing **Black Jacket, Black Sweatpants, and Red Sneakers.**

You are assigned to conduct a targeted search to locate and verify potential matches using available video records

Your Goal

- Use the system to search for individuals matching the witness description.
- Review any matches you find, confirm whether they fit the description, and **save verified matches into your Saved Space**.
- Share confirmed identifications into the Shared Space to support team-wide investigation efforts, including brief explanatory notes for each finding.

#3C. Descriptor-based Searching

Based on Witness Descriptions — Vehicle Collision

Scenario

Following a **vehicle collision** where a scooter rider was displaced due to direct impact, the victim provided a description of the vehicle involved Vehicle: **Gray Ford Sedan**.

You are assigned to conduct a targeted search to locate and verify potential matches using available video records.

Your Goal

- Use the system to search for individuals matching the witness description.
- Review any matches you find, confirm whether they fit the description, and **save verified matches into your Saved Space**.
- Share confirmed identifications into the Shared Space to support team-wide investigation efforts, including brief explanatory notes for each finding.

#3D. Free Usage

Please explore the system consider below;

1. Imagine how this could be used in your everyday tasks and help you
2. Find how the system can be improved

Rest

Today's process

System Introduction

Q & A

System Usage Session

Interview

#4. Interview

General Perception

Feature-wise Perception

Your opinion about **Robot-Video driven Intelligence**

#4. General Perception about MRVS

1a. How can using MRVS system change your department's current practice?

1b. What would be the expected benefits and risks of using MRVS?

1c. How using MRVS can improve your collaboration with your team?

#4. Feature-wise Perception about MRVS

2a. How do you perceive the AI-generated **Video Debrief feature**?

2b. How do you perceive the **Situational Overview feature**?

2c. How do you perceive the **descriptor-based search**?

2d. How do you perceive the **collaborative workspace**?

2e. How is the functionality of the rest of the components in MRVS system? (e.g., timeline, maps, workspace, etc)

#4. Implications of MRVS for future public safety

3a. What are the remaining challenges/design opportunities in building MRVS-like system for future public safety?

3b. What would be the considerations related to the privacy in the future with MRVS?

3c. Please explain what advanced collaborative features that MRVS-like system can consider for future public safety.

3d. Please share any other thoughts freely related to having MRVS-like system for future public safety.

Contact: