

# OBSERV3D LEFT OBJECT DETECTOR

## DETECTION OF SUSPICIOUS OBJECTS IN A CONTROLLED AREA

### OVERVIEW

The Observ3D Left Object Detector software solution enables a real-time detection of suspicious objects that are added to or removed from an observed indoor area by means of a stereo camera and 3D-enhanced image processing. Possible applications include the detection of personal belongings which were left behind in a mantrap access control setup. The system generates events with location and size of the detected objects. The system's operation is based on 2D image data and depth information. This combination enables a robust detection of arbitrarily sized and shaped objects (flat like passports or voluminous like suitcases).

### KEY FEATURES

- ▶ Real-time alerting in case of left objects in monitored area
- ▶ Reliable detection of arbitrarily sized and shaped objects
- ▶ System output: location and size of the detected objects
- ▶ Multiple configuration settings such as region of interest and object size
- ▶ Minimum object size is 10x10cm (passport) for a camera mounting height of 3m
- ▶ Functionality is offered as a web service, which allows a distributed concept having analytics and user interface on separate physical machines
- ▶ Easy integration into existing systems due to the RESTful interface using JSON

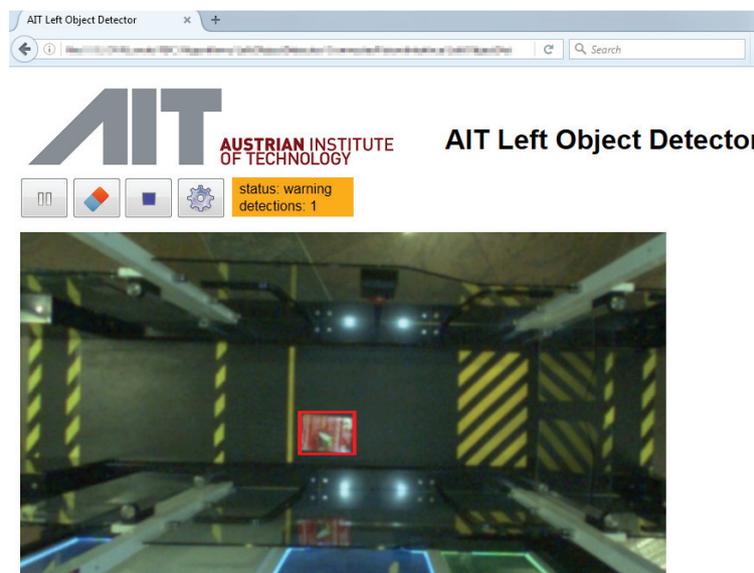


Figure: Visualization of a detected left object (magazine) indicated by a red bounding box

### REQUIREMENTS

- ▶ Ethernet stereo camera (Gigabit, Power over Ethernet)
  - ) mounted above the scene, camera lenses pointing straight down
  - ) camera mounting height depends on the targeted minimum object size (e.g. 10cmx10cm for a height of 3m)
- ▶ Operating system: Microsoft Windows 7/8.1 64 bit
- ▶ Individual configuration of the algorithm for each setup (e.g. mounting height, region of interest)

### CONTACT

AIT Austrian Institute of Technology  
Digital Safety & Security Department  
Donau-City-Straße 1, 1220 Wien | Austria

#### ANDREAS KRIECHBAUM-ZABINI

Visual Surveillance and Insight  
Mobil: +43 (0) 664 235 1790  
E-mail: andreas.kriechbaum-zabini@ait.ac.at