MotionCam (PhOD) Jeweller

Wireless motion detector taking photos by alarm and on demand

Intellect against false alarms

We have combined special optics with a software filter for false alarms in motion detectors. Along with a professional installation, it gives high detection accuracy.

- The detector instantly captures human motion in the protected area.
- The specially designed Fresnel lens provides the most informative thermal diagram.
- SmartDetect software algorithm filters out false alarms.

Special lens

The pattern of the Fresnel lens sections is designed so that the diagrams of the infrared radiation of a human, an animal, and thermal noise have significant differences. Large sections of the lens capture radiation at the level of the head and torso of an adult. Smaller sections make the diagram more detailed. The MotionCam lens provides the detector with accurate information about the thermal object in the detection zone and the nature of its movement.

Professional installation

Installing the MotionCam in the right spot, at the optimum height, and perpendicular to the likely intrusion path ensures an informative thermal diagram. It significantly improves detection accuracy. Professional installation also makes the pet immunity feature more effective.

Filter for thermal interferences

The detector instantly analyzes the thermal diagram from the sensor: the infrared radiation intensity, the heat spot size, the motion speed, the time spent in the detection zone, and other parameters.

Ajax engineers have analyzed thousands of IR sensor triggerings caused by humans, animals, and thermal interference and developed SmartDetect. The software algorithm finds false alarm markers instantly and with high accuracy. As a result, the detector accurately responds to a human and does not bother the user with false alarms.

Temperature compensation

Temperature compensation is a software mechanism keeping the thermal diagram contrast even if the ambient temperature is close to the temperature of the human body.

With each ambient temperature measurement, the detector corrects the PIR sensor data according to the coefficient table stored in its memory. The detector is effective over the entire operating temperature range.

Sensitivity level

With the sensitivity setting, the detector adapts to the conditions of a particular room, considering possible thermal interference or pets. Changing the sensitivity setting affects the markers by which false alarms are filtered.

With low sensitivity, the detector is less likely to respond even to an active pet. And with high sensitivity, it will raise the alarm in case of any motion in the detection zone.

Sensitivity is configured in the Ajax app both on-site and remotely.

Peace of mind on demand

MotionCam (PhOD) needs only seconds to show the actual situation on the scene and dispel the user's doubts in case of an alarm. It takes a click in the Ajax app to take an on-demand photo. Also, the detector will automatically take a series of photos if it captures motion or when FireProtect or FireProtect Plus fire detector triggers.

- Photo on demand
- Photo by scenario
- Photo by alarm

Advantages of photo verification

Loved ones and valuables are under care

In case of any doubts, the system users can check what is happening on the spot. There is no need to wait for an alarm. Just open the app, select the detector, and see the situation at home in seconds.

Less false calls for fire brigades

According to statistics, almost half of fire alarms are false. Visual verification of fire alarms has already become a worldwide practice. MotionCam automatically takes the photos of the premice when the FireProtect or FireProtect Plus detectors trigger. The fire brigade monitoring station can receive the photos and assess the situation in seconds.

Less concern

Up to 70% of false alarms happen when disarming the security system. With MotionCam, system users and monitoring company operators can verify in seconds whether an alarm is real and respond accordingly.

More security

Both system users and a rapid response team need to clearly understand what happens on the scene in case of an alarm. MotionCam shows how many intruders are armed and whether they are still in the room. This will help a security company patrol prepare, and the users avoid danger.

Evidence in a smartphone

A series of animated photos provide the law enforcers with the description of intruders, no time wasted. MotionCam will capture them even in complete darkness, thanks to the IR backlight. The chances of catching burglars in the act increase.

Privacy as a top priority

MotionCam is designed to control security, not privacy. Photos are protected from prying eyes at the detector, system and software levels.

Strict permission distribution

The special menu in the Ajax app helps accurately adjust access to visual data for users and security company operators: who and when can send a request for a photo, who can view the received pictures and streams from integrated surveillance cameras.

Encryption and GDPR

Graphic data is securely protected by encryption at each step of transmission and storage. Only hub users can access its virtual storage on Ajax Cloud and view photos taken by MotionCam detectors. The Ajax Cloud is located on geographically distributed servers in compliance with the General Data Protection Regulation (GDPR) requirements.

Detailed event log

Only users with access rights can view the photos in the system event log. The event log stores the last 500 system events.

Unique wireless technologies

MotionCam Jeweller detector uses two radio protocols simultaneously: Jeweller to inform about alarms and Wings to transmit photos. Jeweller provides instant alarm delivery, while Wings delivers the first photo from the scene in just 9 seconds. Even with communication breakdowns and a weak signal. The communication range with the hub is up to 1,700 meters, so the detector can be easily installed where it will be the most effective.

- Two-way encrypted communication

- Installation range up to 1,700 m

- Photo delivery under 9 seconds

Solution for a large-scale security

ReX 2 range extender doubles the radio range up to 3,400 meters, while photos to verify alarms can be transmitted via the Ethernet cable**. Automatic signal strength adjustment and frame synchronization ensure that any number of system devices can be connected to ReX 2 without compromising communication reliability.

Ajax system supports connection of up to 5 range extenders with total coverage of up to 35 km^2.

Complex anti-sabotage

Notification of dismantling	Communication loss detection in 36 seconds
The detector enclosure is equipped with a tamper that detects an attempt to remove the device from the SmartBracket mounting panel or tear it off the surface.	The wireless devices polling frequency is adjusted by PRO or user with admin rights in the in-app hub settings. With a minimum interval of 12 seconds, the system takes 36 seconds to detect the communication loss with the device and notify the security company and system users.
Device authentication against fraud	**Jamming detection in 30 seconds**
For authentication, the hub checks the device's unique parameters during each communication session. If any parameter fails the check, the hub ignores device commands.	The hub analyzes the quality of communication with the system devices. If some data packets are lost, the control panel will change the transmission frequencies and inform the monitoring station about radio interferences.
Data protection with encryption and hopping	**Notifying about events in 0.15 seconds**
All data that the system stores and transmits is protected by block encryption with a dynamic key. Radio transmission uses frequency hopping, which makes interception and jamming more difficult.	The monitoring station receives notifications on alarms and detector events in 0.15 seconds. The information includes time, device model and name, event type, and location room.

Intuitive installation and connection

Add the MotionCam detector to the Ajax security system with a few taps. Open the Ajax app, scan the QR code and assign the detector to the room. There is no need to disassemble the detector enclosure. SmartBracket mounting panel allows you to securely install the detector on a flat surface or in a corner.

- Adding to the system via QR code

- SmartBracket mounting panel to install the device without dismantling

- Configuration and testing in the mobile and desktop apps

[1] When installed indoors

[2] With the Hub — Detector polling period of 12 seconds

[3] Photo delivery time depends on image resolution selected in device settings