

# Hub 2

manages the security system with visual alarm verifications

Transmits photos from MotionCam detectors	Automatically notifies the alarm response company	Full system control in one app	Communicates via 3 independent channels
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## In control of security, not your private life

Hub 2 manages all the Ajax devices in the system to alert users about open doors, broken windows, threats of fire and flooding. If burglars break into your house, Hub 2 transmits pictures from the MotionCam detectors and notifies the alarm response company about the danger. You won't need to live under the constant supervision of the security cameras to know what's going on.

- Baffles thieves
- Prevents fire
- Detects flooding
- Doesn't peek

## Stress-free

The motion detectors react to dangerous situations as well as simple oversights. A nanny may bring the children home from the school and forget to disable the security system, which will raise an alarm. With Hub 2, you won't have to worry in those cases and waste money on the false alarm fines. Open an alarm notification sent by the MotionCam detector to see what happened.

- Send a photo-series when triggered
- Deliver packages without Wi-Fi and cables

## Always in touch

Hub 2 uses Ethernet or one of the 2 SIM cards to guarantee the delivery of the alarms and photos from the secured objects. The channels work in parallel and back each other up in case of emergency.

Compression and transmission protocols guarantee lightning — fast delivery of the photo series even with weak Internet connectivity. Unlike with the video camera streams, with Ajax, you can evaluate the situation on the secured objects at the 0.5 kB/s Internet speed.

- Uses 3 independent communication channels
- Delivers alarms in 0.15 seconds
- Transmits photo confirmations even on 2G

## Trouble resistant

With Hub 2, you'll know immediately if the detector has a malfunction, if someone removed it, if it is damaged, or if its body is open. Even if the lights suddenly go out, the control panel will continue its watch powered by a back-up battery.

- Checks the functionality of detectors at least every 12 seconds
- Alerts about threats, channel interference, or malfunctions
- Operates for up to 16 hours during a blackout

## Evolves with every software update

Hub 2 runs on OS Malevich, a real-time operating system. This type of software is used in the systems that can't afford mistakes — for instance, spaceships and ballistic rocket launchers, or car brakes.

OS Malevich is immune to viruses and protected from cyber attacks. Its architecture allows us to regularly expand the Ajax possibilities over the air within seconds and without bothering the users.

- Protected from cyber-attacks
- New features with every update
- Automatically updates over the air

## Unique communication technologies

<p><b>Jeweller</b></p> <p>Hub 2 central panel communicates with the security system devices using radio frequencies on a distance of up to 2000 m.</p> <p>Two-way Jeweller radio protocol encrypts all of the transmitted data. And in cases of interference or jamming, Ajax switches the frequency and notifies you as well as the alarm response company about the situation.</p> <ul style="list-style-type: none"> <li>• Coverage area up to 2000 m</li> <li>• Two-way radio communication</li> <li>• Encryption with a modified AES algorithm</li> <li>• Frequency hopping</li> </ul>	<p><b>Wings</b></p> <p>For parallel visual data transmission from MotionCams, Hub 2 uses Ajax Wings radio protocol. It is a high-speed protocol based on Jeweller technology. Wings received its best features. It also uses a separate antenna to improve channel reliability.</p> <p>Wings guarantees the delivery of photo confirmations even if the signal level is unstable. It uses the in-built algorithms of package checking and re-uploading.</p> <ul style="list-style-type: none"> <li>• Transmission of the animated image series</li> <li>• Communication via additional antenna</li> <li>• Guaranteed data delivery</li> </ul>
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## Seamless setup

It takes minutes to install Hub 2. Connect it to the Internet and plug the power cord. Then scan the QR code using Ajax app. In most cases, your devices won't require any additional tuning. Hub 2 begins to operate once online.

1. Download the free app
2. Scan the QR-code
3. Control from anywhere in the World

## Hub 2 looks after your home, office, store, or a plant

<p><b>Where to buy?</b></p> <p>Find the nearest partner</p>	<p><b>Build your own alarm kit for a complete security on site</b></p> <p>Build your set</p>
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## Tech specs

Classification	The radio channel central unit with the support of visual alarm verification detectors
Installation	Indoors
Maximum amount of devices that could be connected to the hub	100
Video surveillance support	Up to 25 cameras or DVRs <a href="#">Learn more&gt;</a>
Maximum amount of users	50
Maximum amount of rooms	50
Maximum amount of security groups	9
MotionCam detectors support	+
Communication channels	Ethernet two 2G SIM-cards
Alarm signals	Delivery time: 0.15 sec Notification types: SMS, call, push-notification
Switching between the SIM-cards	4 minutes
CMS connectivity	Contact ID, SIA  Photo verification integrated in Manitou, ABSistemDC(NG), WBB, Horus, V1/F1, Kronos, Sentinel and SBN
The speed of alarm delivery to the CMS	Instant
Software	OS Malevich <a href="#">Learn more about firmware updates &gt;</a>
Power supply	Main supply: 110–240 V Battery backup: Li-Ion 2 A·h Up to 16 hours of offline operation when the Ethernet is switched off Energy consumption from the grid — 10 W
Jeweller radio technology	Communication range with detectors — up to 2,000 m in an open space Two-way communication between devices Operating frequencies — 868.0-868.6 MHz Self-adjusting RF output power — up to 25 mW Block encryption based on AES algorithm Detector polling period — 12–300 s Frequency hopping <a href="#">Learn more about Jeweller &gt;</a>
Wings radio technology	Transmission of visual confirmations Delivery verification of packages
Operating temperature range	From –10°C to +40°C
Size	163 × 163 × 36 mm
Weight	362 g

Warranty	Replacement and repair within 24 months of the date of sale. Batteries are not covered under warranty. <a href="#">Learn more&gt;</a>
Complete set	Ajax Hub 2 intelligent control panel SmartBracket mounting panel Power cable Ethernet cable Installation kit SIM card (depending on region) User's guide