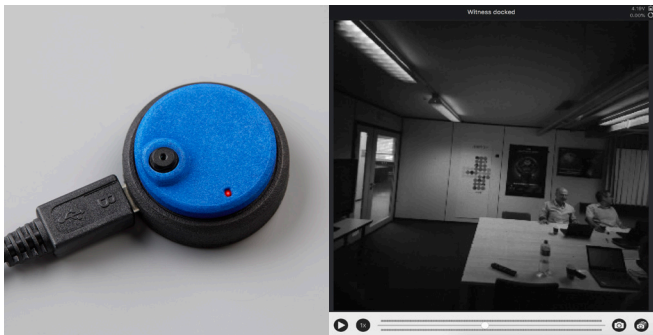


## Autonomous surveillance recorder

WITNESS is an autonomous image logger recording pictures based on scene activity detection. Deployed in the field like a sticker, it is powered by a flexible and adhesive PV-cell.

The camera functionality is embedded in a thin coin which is magnetically attached to the PV-cell during installation. This configuration has been adopted for quick integration of other applications (coins with other sensors and duties). The easy-to-detach coin allows quick device recovery for downloading the recorded pictures using the dedicated app.



*Witness coin on dock (left) and app running on a computer (right)*

The activity detection and image capture are performed with a maximal frame-rate of 1 fps for a power budget close to 1 mW. The variable power from the solar cell is buffered internally to provide multiple hours of operations in darker conditions.

The WITNESS camera architecture leverages on the ERGO320 CMOS imager which captures pictures with extremely low power budgets, while reducing component costs which constrain many types of IoT devices.

### Features

- Resolution: QVGA (320 x 320) monochrome
- Dynamic range: 120 dB intra-scene
- Wide angle field-of-view (107°)
- Custom MJPEG compression
- 64 M-bit flash storage
- Power consumption at 1 fps: 1 mW
- Flexible solar cell (2.5 mW @ 1 kLux)
- USB cradle and GUI for images collection and storage in AVI format

### Applications

- Quick to deploy unattended surveillance
  - Crime scene
  - Unoccupied premises check
- Camera trap
- Wildlife observation

