

Benefits

- BlueEye improves patient outcome in pre-hospital emergencies by helping provide oversight, diagnosis and treatment via wireless video link
- Wearable video camera mountable on safety glasses enables medical specialist to see remotely and in real-time point of view streaming
- Belt mounted 4G wearable module with long life battery for a long work shift in the field
- The use of live video can provide admission and overnight stay cost savings, enhanced operational efficiency based on pre-hospital diagnosis and improved patient outcomes.

At A Glance

BlueEye is a wearable video technology for paramedics and emergency scene attendants which permits a hospital specialist to see patients remotely, enabling critical pre-hospital treatment. The benefits of this live, point of view video are life-saving, cost-saving specialist support in acute situations.



Blue-Eye Wearable LTE/5G Wireless Video and Audio

Problem Definition

The cost of healthcare delivery continues to rise, with the growth rate of health expenditure outstripping that of GDP, coupled with the challenges of an ageing population, means that traditional healthcare is not sustainable and eHealth solutions are needed to save costs as well as lives.¹

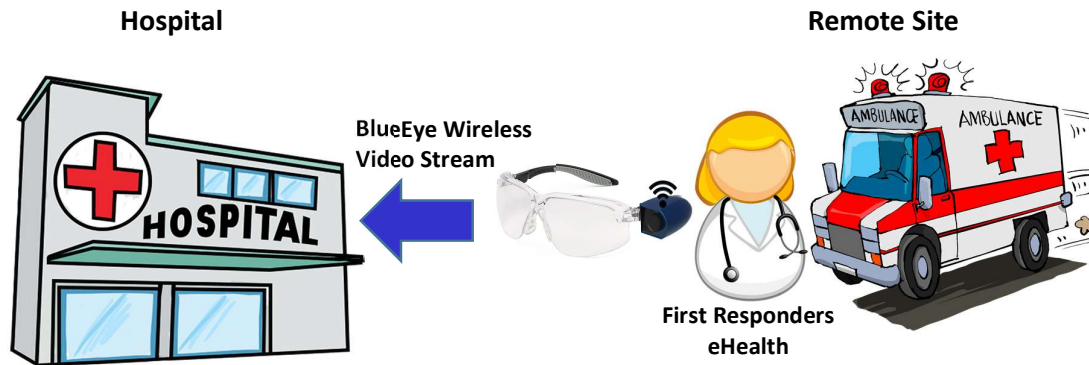
Emergency doctors are seeking to use video to support acute pre-hospital patients. Some potential examples of this support:

1. Heart attack and stroke: provide expertise to the responding paramedic who only has a few minutes to restart the heart in a case of cardiac arrest.
2. Trauma: remotely provide specialist support to the scene of a car crash in the case of trauma.
3. Childbirth and small children: support paramedics providing immediate visual assessment, reassurance to parents and medical advice in the case of childbirth or severely ill children, who can deteriorate rapidly and be difficult to diagnose.
4. Home treatment: stabilise patients in their home rather than via a short stay in hospital in the case of chronic obstructive pulmonary disease (COPD) patients.

About RedZinc

RedZinc in conjunction with partners has assembled key technologies of a wearable computer/camera, 4G network access and end to end priority mechanism for video traffic.

¹ <https://5g-ppp.eu/wp-content/uploads/2014/02/5G-PPP-White-Paper-on-eHealth-Vertical-Sector.pdf>



Features

- Simplex video and duplex audio enabling live remote video to be seen in the hospital
- Belt mounted wearable Intel Edison processor with 4G LTE wireless modem with high capacity battery
- Optimizes real time video for emergency services over LTE/4G/emerging 5G networks

Camera

- Safety Glasses Mounted
- 1/2.7-inch sensor size
- 1080p/720p HD Colour CMOS Image Diagonal 110 +/-5 degree wide angle
- H.264 Codec
- Internal Microphone
- Up to 1080p @ 30 fps (depending on uplink bandwidth)

Processor

- Low Power Intel® Edison
- Dual core
- Wearable Processor

Indicators

- Power, Active,
- Camera, Connect
- Wireless, Notify

LTE & Wireless

- 3GPP Release Baseline 9
- LTE FDD Category 4
- LTE Bands 1, 3, 5, 7, 8, 20 (Euro)
- American LTE Bands on Request
- 802.11abgn
- Dual SIM
- GPS option

Battery

- Replaceable Lithium Ion
- 49Watt Hour

Video & Audio Connectivity

- Live Streaming to Hot Desk or Hub
- Encrypted Video and Audio
- Simplex Video
- Duplex Audio