4 International Clinical Engineering & Health Technology Management Congress
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Process of innovation in smart healthcare technologies

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Event Website: **https://www.globalcea.org/icehtmc**

IFMBE Clinical Engineering Division
GLOBAL CLINICAL ENGINEERING ALLIANCE
AAMI

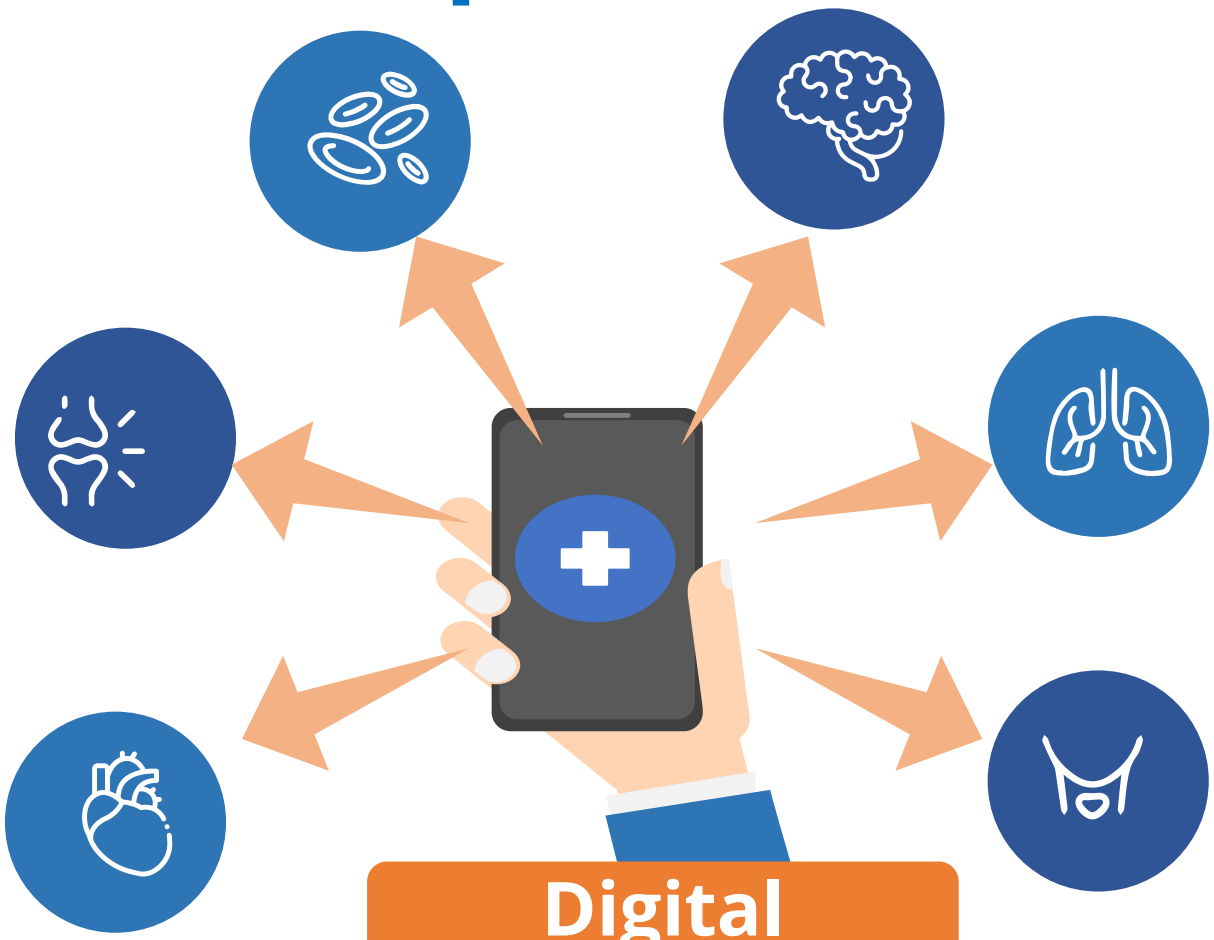
The Team / Workgroup

The presented projects have been led by Prof Sandy RIHANA

The team, dedicated Biomedical Engineering Students

- Wearable device for hikers : Paul Abi Ramia, Veronica Matar, Haydar Noun
- Smart baby monitoring : Najwa Dagher, Anna Malek

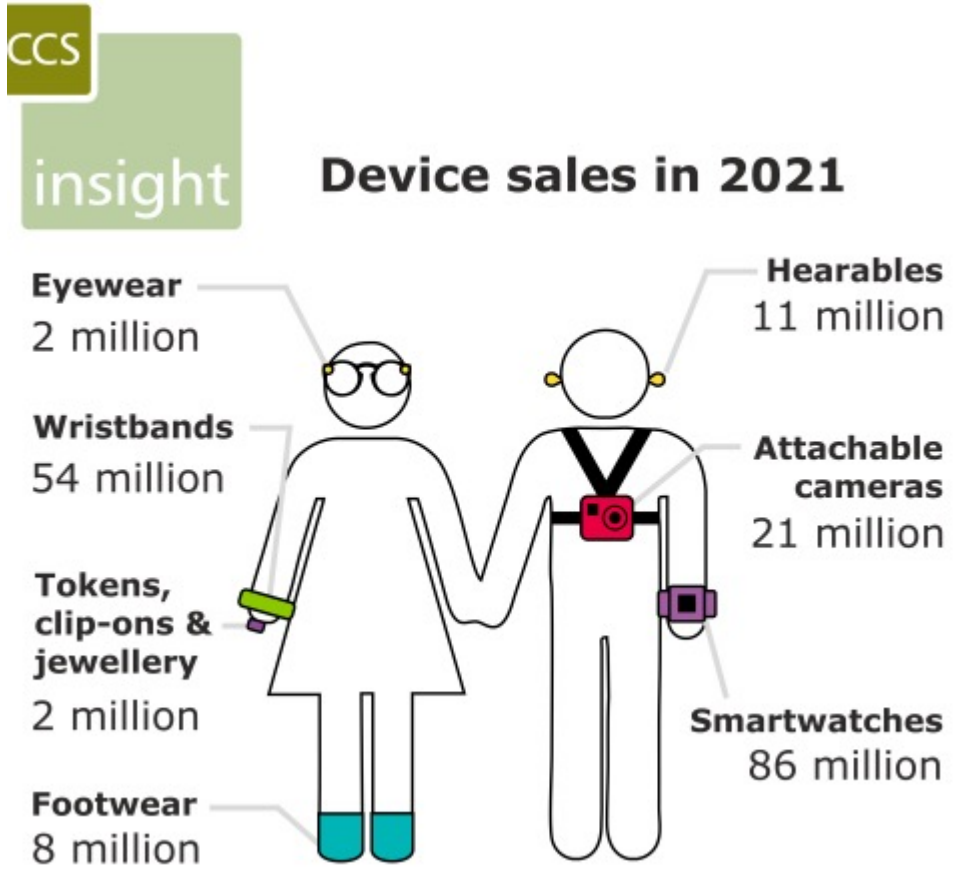
Description



Digital Technology

Artificial Intelligence

Description



Reference : CCS Insight

Market size
116.2
Billion
2021

Market size
265.4
Billion
2021

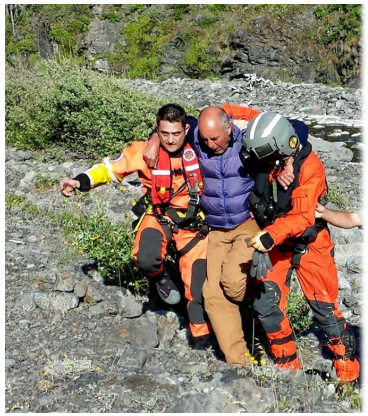
Market
Growth
18%

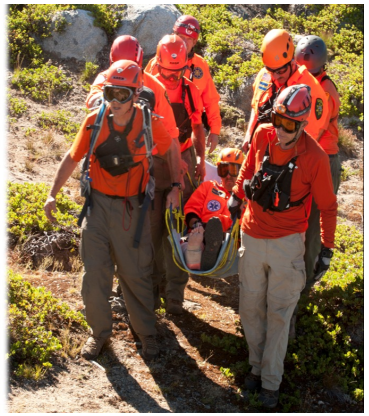
Goals of the project and final users that will benefit

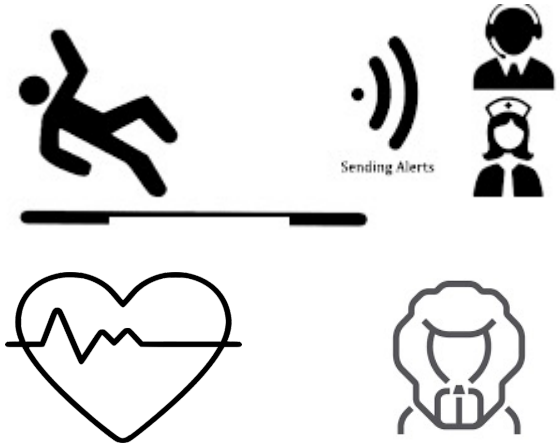
Wearable device for hikers

- Monitor remotely the vital signs
- Detect falls when occurred
- Activate airbag helmet
- Incapability to move after a fall
- Automatic distress message and call sent to the nearest hospital

Or ambulance







Goals of the project and final users that will benefit

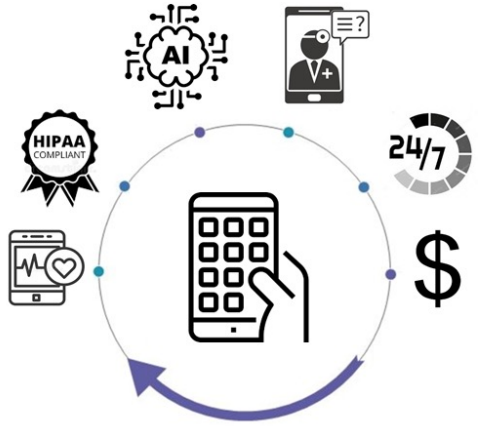
Smart baby monitoring

Monitoring your child remotely

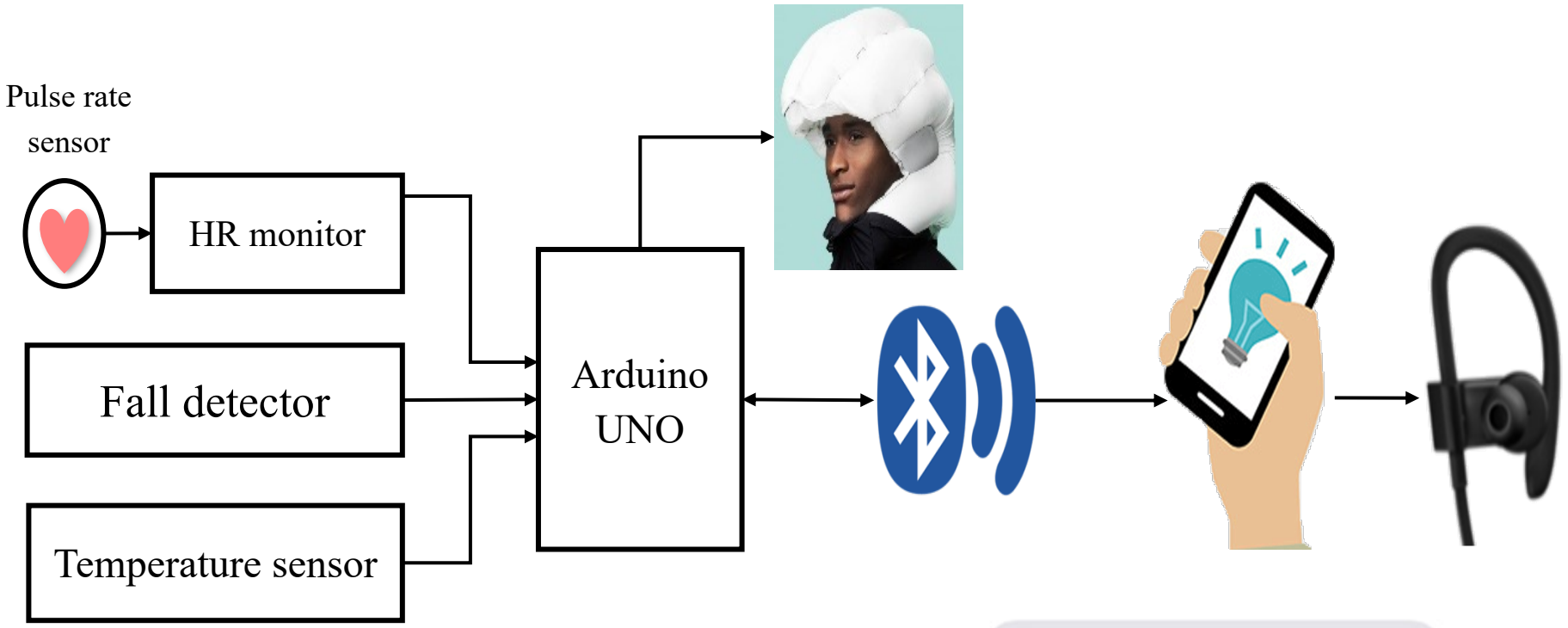
→ Busy parents

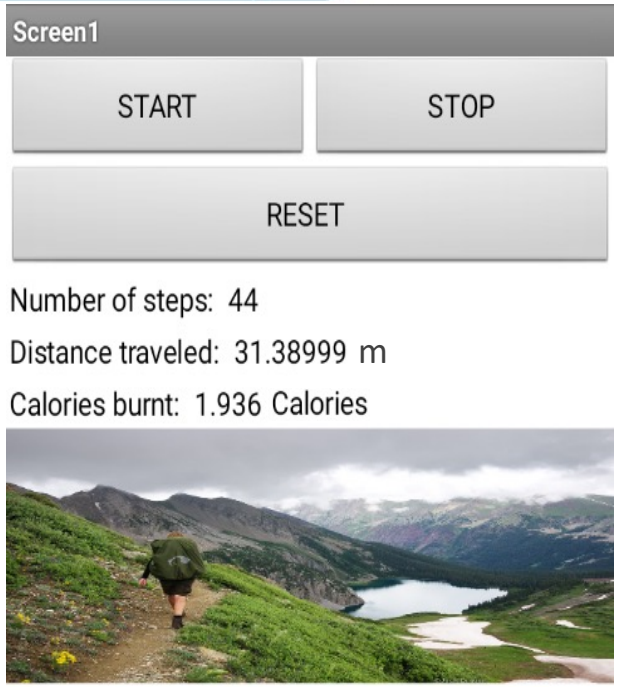
→ continuous remote monitoring of the babies with livestreaming

Wearable system that can detect vital signs monitoring!



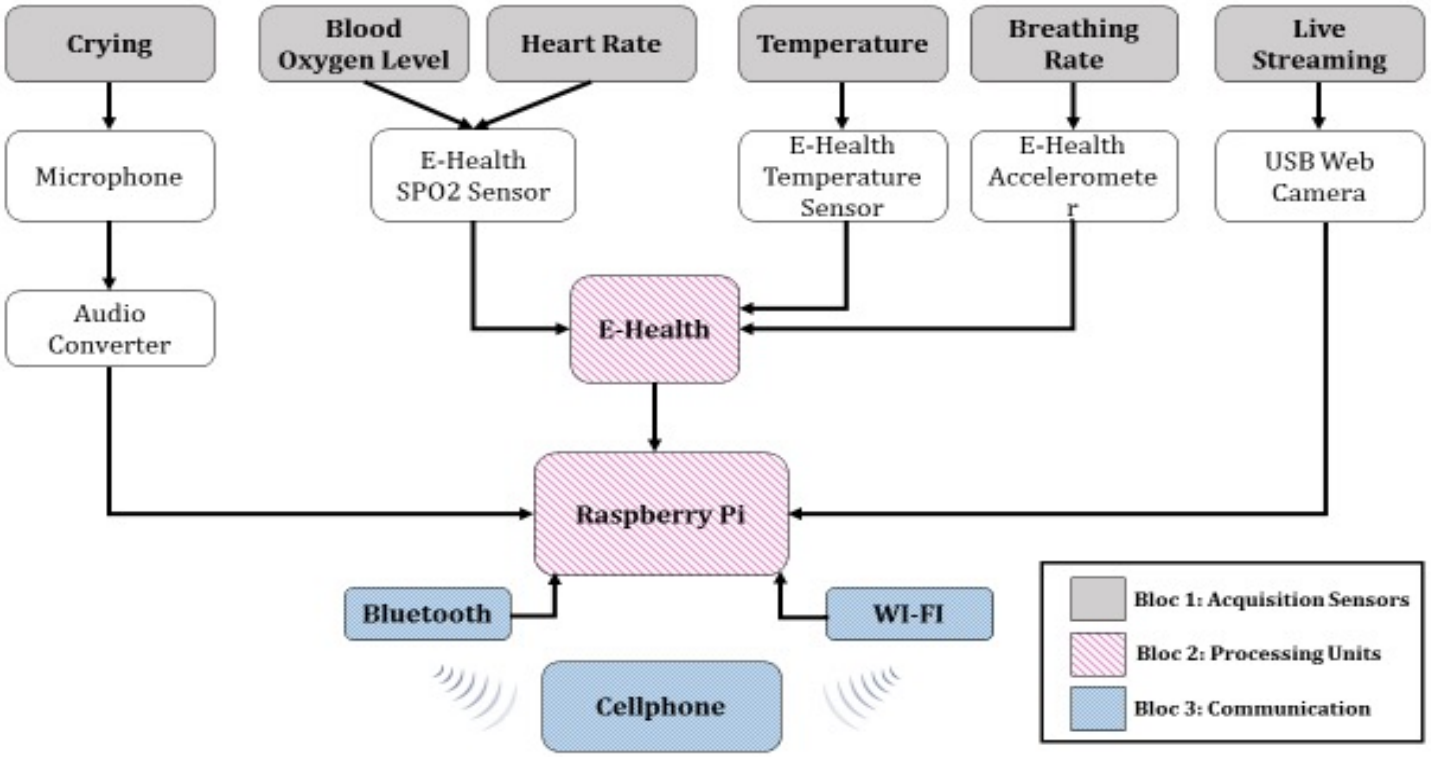
Results

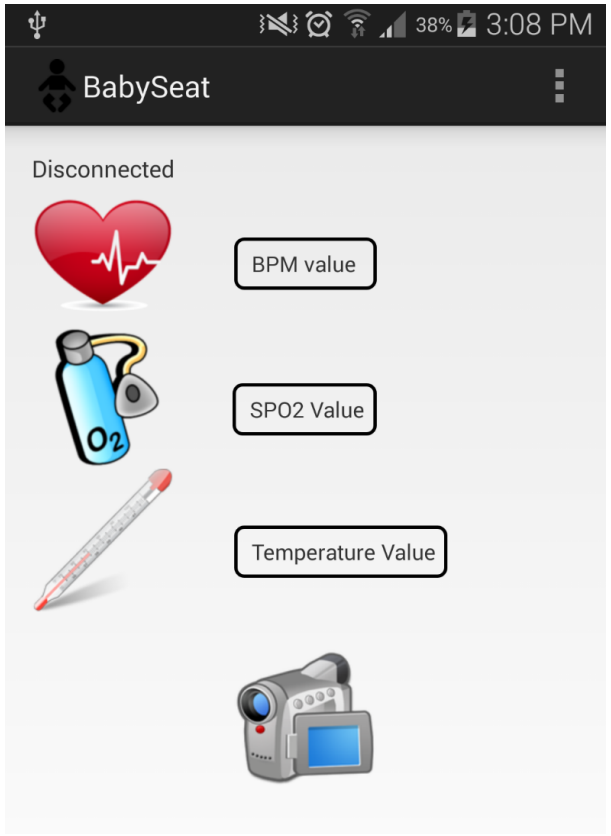


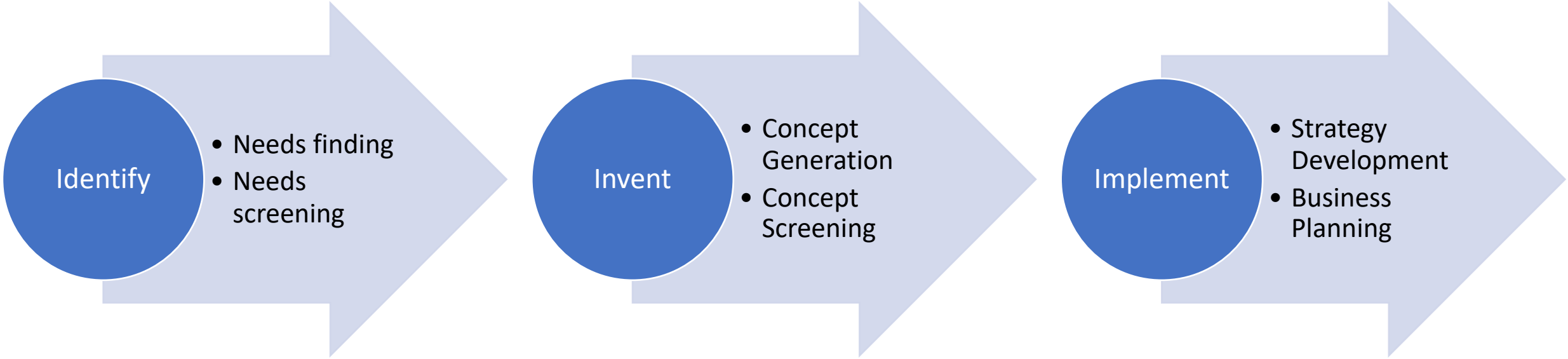


A fall is detected in the following location Altitude: 68
Latitude: 33.96899
Longitude: 35.60913

Results


Crying
Blood Oxygen Level
Heart Rate
Temperature
Breathing Rate
Live Streaming
Microphone
E-Health SPO2 Sensor
E-Health Temperature Sensor
E-Health Accelerometer
USB Web Camera
Audio Converter
E-Health
Raspberry Pi
Bluetooth
WI-FI
Cellphone
Bloc 1: Acquisition Sensors
Bloc 2: Processing Units
Bloc 3: Communication


38% 3:08 PM
BabySeat
Disconnected
BPM value
SPO2 Value
Temperature Value


Identify
• Needs finding
• Needs screening
Invent
• Concept Generation
• Concept Screening
Implement
• Strategy Development
• Business Planning

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