NAVIGIL

S3 Wristwatch GPS and Activity Tracker

GPS wristwatch tracker with phone feature for dementia and Alzheimer's sufferers!

GPS/GLONASS location

Home and safe zone exit alarms

Long battery life

Home beacon indoor location

- **Locking strap buckle**
- **3G/GSM phone**
- **Wearer activity statistics**

NAVIGIL S3 wristwatch is designed for those suffering from dementia or Alzheimer's disease. It enables extended independent and safe living at home. Cost of sheltered care is typically 1.000 euros per week - Navigil S3 pays for itself in a few days while providing peace of mind.

Easy to deploy

Navigil S3 comes with a SIM card pre-installed. Draw a safe zone, define phone numbers and define alarm routing - Navigil S3 is ready to go. Two user profiles can be used: AUTO profile for persons who may be able to call for help themselves and TRACK profile for others. Navigil S3 will send automatic location alarms when the wearer goes beyond the range of the home beacons and/or when the wearer exits a safe zone. Auto profile enables wearers to make SOS calls. Navigil S3 accepts and automatically answers phone calls from defined numbers. Alarm notification calls can be routed using a calendar based caregiver availability schedule.

Intelligent adaptive tracking with safe zones

Navigil S3 has industry benchmark adaptive tracking with safe zone functionality. Safe zones can be defined as

polygons or as circles. Each safe zone can be associated with a weekly validity period. A safe zone considered always safe can be the home with beacon signal coverage, during day time a larger geographical area and once per week an even larger area safe to enable visits to recurring events. Rather than sending location reports at slow fixed intervals Navigil S3 adapts the reporting interval based on wearer's level of activity. The location is updated at thirty second, two minute or thirty minute intervals based on amount of wearer movement and type of tracking.
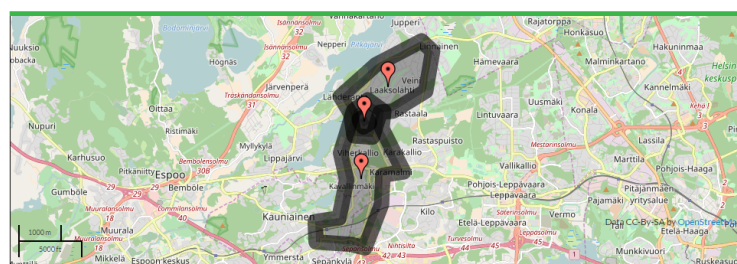
Long battery life

Due to advanced power saving modes of the hardware, beacon functionality and intelligent power management in the firmware, Navigil S3 can operate several days on a single charge while being always reachable by phone and while sending periodic status, wearer activity and location reports. Typical battery life is three days in normal mobile network conditions when the watch wearer is up to two hours per day outside of home beacon signal range.

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S3 Wristwatch GPS Tracker

Industry benchmark footprint and functionality

Mobile comms	Modem / communication	Tri band 3G/GSM/GPRS/EDGE/UMTS/HSPA+ (EU and US versions)
GNSS	Receiver type	GPS/GLONASS receiver, SBAS WAAS/EGNOS/MSAS support
	Sensitivity	Acquisition -148 dBm, navigation -162 dBm
	A-GPS	A-GPS assistance (up to 28 days)
Short range comms	BLE	Bluetooth Low Energy communication with beacons
MCU	Processor	ARM Cortex-M3, 64/512/8192 kbytes RAM/code/flash memory
Audio	Microphone / speaker	Adjustable gain and volume control
User interface	Profiles	Tracking (dementia) or Auto (mild dementia), over-the-air selectable
	Dementia user UI	All buttons disabled or just SOS call button enabled (Auto profile)
	Watch	Analog watch, two software controllable hands
Sensors	Onboard	3D accelerometer, temperature
Battery	Li-ion	500 mAh, after 500 charging cycles capacity left over is 90+ %
Operation time	GSM always on	Typical 2 - 5 days, depending on profile and conditions
	GSM off at home	Up to four weeks, depending on profile and conditions
Software features	Data communication	SMS, USSD, GPRS, HSPA+ with message buffering on data flash
	Location alerts	Automatic location alerts for beacon range and safe zone exit
	Alarms	Beacon range exit, safe zone exit, no movement, battery critical, no connection to service, no reply to alarm call
	Warnings	Battery low, safe zone entry, poor GSM network coverage
	Home beacon alarm	Timed beacon alarm, alarm can be suppressed during day time
	Safe zone functionality	Polygon (up to 4.000 corners) or circle safe zones with validity time attributes. Easy to use web browser based safe zone editor
	Receiving phone calls	Automatically accepted calls, white list access control
	SOS calls	Make SOS call with a push of the crown (Auto profile only)
	Tracking modes	Adaptive tracking based on wearer activity level, report interval depends on state of movement. Remotely activated emergency tracking mode with 30 second reporting interval.
	Activity statistics	Wearer statistics including duration of very active, active, little movement, at home by area, out of home periods
	Event reports	Periodic status, beacon range exit, safe zone, activity statistics, battery status and charging reports, location reports
	Over-the-air updates	Configuration, parameters, safe zones, firmware and boot loader
Beacon	Home beacon	Easy to use charging dock with beacon functionality
	Mini beacons	Indoor location information and room occupancy statistics
Temperature range	Operation	Use: -20°C – +60°C, S1 charging 0°C – +45°C
Certifications		RoHS, CE, 99/5/EC
Available versions	S3	Atlantic (black), Arctic (silver) and Sahara (rose gold) color variants
Enclosure	S3	Splash water protected, standard 22 mm strap interface
Dimensions	S3	Diameter 48 mm, thickness 17 mm, weight 65 gr. (normal strap)

Key features are:

- Status of wearer's location: at home or at a location calculated using GPS
- Alarm on of beacon range and safe zone exits
- Activity statistics can be used to identify changes in wearer's daily routines

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