

Soter Analytics



SoterClip&Go

Prevent work-related manual handling injuries

GUIDE

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The information in this guide is addressed to different areas of the company:

Overview

→ For High-level overview

H&S

→ For H&S specialists, on-site implementers

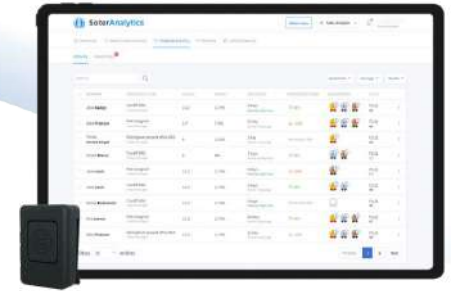
Device user

→ For the workers, device users

Clip&Go overview

The solution will be used by:

- Workers: Devices and Clip&Go box/hub
- Management: Dashboard



Clip&Go helps raise awareness and reduce manual handling movements that contribute to musculoskeletal pain, lost workdays and injury claims:

- **Real-time feedback** from the device provides worker with information about back and shoulder hazardous movements
- **2-weeks in-field training program** - worker achieves significant improvements while spending little time. The training is integrated on-the-job, “learn by working”
- **Risk and progress analysis** in-app (Worker) and in the Dashboard (Management): complete overview of the H&S landscape to approach the risks on different levels of the hierarchy of control.



How the tech works

- **Measures** bending and twisting movements
- **Calculates** if the movement is hazardous based on vast amounts of research that have quantified ergonomic injury risk.
- Gives an audible and vibration **live notification** for the hazardous movements.
 - ◆ Extremely accurate: only up to 8% false positives
 - ◆ Real-time feedback creates **awareness** of the hazardous movements to initiate a lasting change in habits.
- **The data** from the device is uploaded into the cloud and then consolidated results and reports are presented in the **dashboard**.
 - ◆ The device does not require any active Internet connection while in use.
- The progress is measured in comparison to the baseline to give you complete understanding of the results achieved while in program.
(Baseline is the maximum of hazards per day calculated on the 1st 2 days).

Spine hazards*

* Hazard is any movement associated with an increased risk of injury

Note: **ALL notifications can be triggered with or without load**



Poor bending

Forward bending angle of $>90^\circ$

1 short beep & vibration



Back twisting

Twisting of the spine of $>30^\circ$ but must be combined with a bending angle of $>50^\circ$

3 short beeps & vibration



Intense bending

Velocity of the movement combined with other triggers. If the movement is jerky and not smooth it falls under this category

3 long beeps & vibration



Awkward static posture

If a bending angle of $>60^\circ$ is held for >20 seconds

No notification
(in-app analysis)



Repetition

If any hazardous movements of 2 or more are performed within a minute

No notification
(in-app analysis)

Shoulder hazards*

Note: **ALL notifications can be triggered with or without load**



Arm elevation

Elevation of arm in any direction $>90^\circ$

1 short beep & vibration



Pushing & pulling

- With arm elevated
- Jerky pushing & pulling
- Pulling with an open shoulder
(Based on RAPP tool health and safety executive)

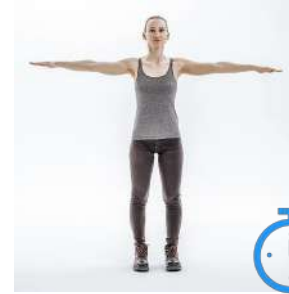
3 short beeps & vibration



Overexertion

Cumulative arm elevation of $>90^\circ$ for $>20\%$ of working time (wearing the device)
(Based on WISHA checklist guidelines)

3 long beeps & vibration



Static arm elevation

Elevation of arm in any direction $>90^\circ$ and held for >30 seconds

No notification
(in-app analysis)



Repetitive arm movements

Elevation of arm in any direction $>90^\circ$ performed more than 2 times/minute

No notification
(in-app analysis)

How to use and wear the device

- The user should put the device on before the shift and wear it through the day for 10 days
- On the 1st day the device doesn't give notifications to build a data baseline
- 30+ day battery life, no Wi-Fi required



Spine program

Clip to the back of the shirt, in the midline, close to the spine

The closer it is to the body the better. The neck of a t-shirt or hi-vis vest is perfect. (do not wear it on a jacket, hoodie, etc.)



Shoulder program

The device should be placed on the armband somewhere between the shoulder and the elbow.

Clip&Go daily routine

Take the device

- Log in to the app.
- Take device from the hub.
- Scan the QR code on the device.
- Check previous progress if needed.

Wear the device

- Wear the device on the back or arm at the start of a shift.
- Stay alert to the real-time feedback indicating hazardous movements.

Dock the device

- At the end of the shift:
- Scan the QR code on the device.
 - Dock the device firmly into an open charging slot.
 - Check the daily progress and any rewards earned in the app.

Day 1

No notifications

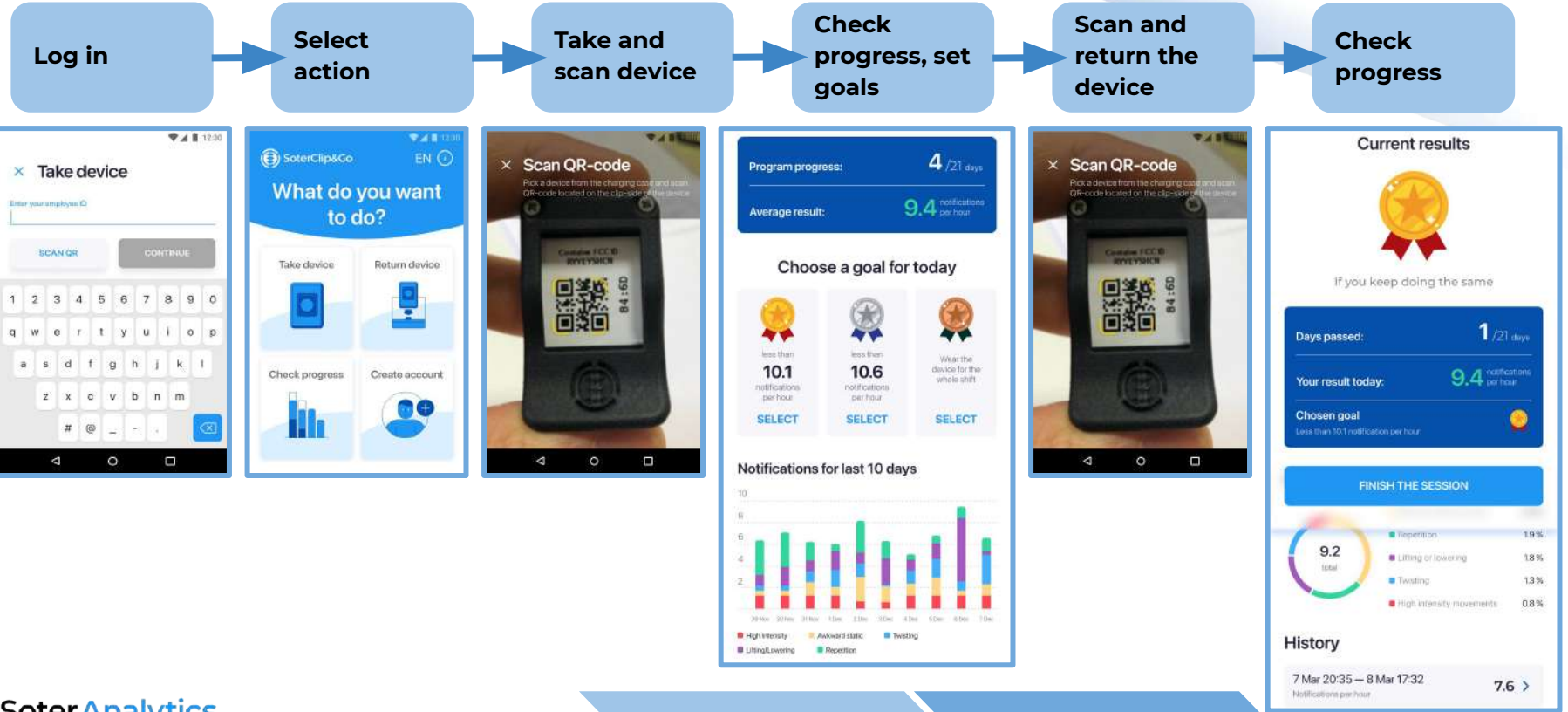
- In-app data visible after 30 min of active manual handling

Days 2-10

Wear the device every working day

- Listen to the beeps to become posture aware
- Check dominant risks in the app daily

How to use the tablet



Gamification to raise engagement

In-app gamification to engage users into the program:

After each day in training the user receives a medal in the app:

- Gold for 10% reduction of hazardous movements compared with the average of the previous 10 days
- Silver for 5% reduction
- Bronze for completion of the whole training day (consolation prize)



Add competition component:

- Invite users with the highest number of gold medals to a lottery/prize ceremony at the end of the programme. The prize may be small, but it affects the engagement.
- Set a competition for the best idea(s) on workspace improvements to engage the users and to gain more insights.

How to use the Dashboard

- **Log in** by following an invitation in your Email
- **Set up users:** select who in your organization will have access to the dashboard
- **Assign:** departments / job roles / tasks to the device users
- **Analyse** the number of hazardous movements by departments / job roles / tasks
- **Gain insights** on individual progress:
 - ◆ Check the usage rates and program completion by user
 - ◆ Check the users at highest risk
 - ◆ Check the users with best/worse progress
- **Move up the hierarchy of controls** and prevent injuries from happening (please see the detailed use case in the [The Safety Professional's Data Playbook](#))

Implementation best practices

PRE-launch

- Assign an **Implementation Manager** to the project:
 - ◆ Responsible person for setting up on site,
 - ◆ Point of contact for the device users,
 - ◆ Responsible person for checking usage rates.
- Identify **shift champions** that make sure the devices are used.
- Select workers to undertake the program (consider **volunteers**).
- **Test** the technology to check the user experience.
- Conduct a **presentation for the workers**. An interactive session that explains what the notifications mean and how it will help them reduce the risk of injury at work.
- Ensure the Clip&Go hub is **easily accessible** for device users at the start and end of each shift/day.
- Attach the **motivational poster(s)** near the box to draw users' attention to the devices.
- Offer the users to carry with them **why the beep cards** (provided by Soter).

Implementation best practices POST-launch

- On the Dashboard, **categorize your workforce** by entering departments and job roles. The more detailed segmentation - the more targeted actionable data can be obtained
- After receiving the first 2 days of data, have job task sheets completed by workers with high number of hazardous movements and **enter tasks** in the Dashboard
- **Invite shift leaders and Health & Safety specialists** to the initial dashboard data analysis session with Soter - usually conducted after the first week of kick off
- Review the data on your dashboard and **talk to the workers** that are most at risk, assisting them to investigate how to prevent their number of hazardous movements. This could be by changing the environment, the tools used or offering tailored training.

What to communicate to the worker

- **It is important they wear the devices every working day for 2 weeks (10 days)**
- **WHY they have been given the technology**
 - ◆ To help them understand their movements and increase their movement awareness
 - ◆ To provide them with feedback about how they are moving that can be shared with their safety manager to take part in implementing any controls needed
 - ◆ Feeling supported and fostering a sense of ownership by actively playing a role in their own safety behaviours.
- **HOW to use the technology**
 - ◆ How to wear & use the device
 - ◆ What the notifications mean
 - ◆ How to use the application
- **User PRIVACY**
 - ◆ Soter tech doesn't show the productivity data
 - ◆ The device doesn't collect GPS data
 - ◆ The data shown in the Dashboard can be anonymized

Our users feedback:

I just like that it fully **makes you aware** how to perform safety movements and not develop injuries in the future or while ur on the job. It fully got me lifting and moving the right way so I wouldn't have back problems in the long run. It's a **good program for all that start any lifting job.**

Picker,
Logistics company



All in all I think it is a solid program. It was very shocking to see how well it worked and how even **after you are done wearing it you are still trying to do the right movements.**

Nurse,
Hospital



The program was very successful and helpful to allow me to **lift properly.**

Diesel Mechanic,
Heavy Machinery
Distributor



Soter Support

→ Continuous Support:

- ◆ We offer continuous support during all the stages of the partnership free of charge, including implementation, post implementation, continuous progress monitoring, support in reading the data, to make sure you get the most out of the solution.

→ Materials:

- ◆ Clip&Go guide
- ◆ Testing instructions
- ◆ Motivational poster that fits your staff genre

→ Service

- ◆ Your personal Customer Success Manager
- ◆ Fast Technical Support Help@SoterAnalytics.com

→ Soter / Project Managers meetings:

- ◆ Dashboard data analysis session from Soter, based on your data
- ◆ Recurring check-in calls