

Health Loop | An Approachable, Understandable, Enjoyable Fitness Experience



Ready?

➤ Lean ahead

➤ Lean right

➤ +Accuracy

Design Provocation

Children today are expected to die five years younger than their parents.

Our upcoming generation's lack of physical activity is so pronounced that life expectancy is falling faster than modern medicine improves it.

\$147B

Healthcare cost to USA in 2008, double the education budget.

**More Deaths
Than Smoking**

Every year. Affects psychological health and wellness as well.

40%

Inactive children score 40% lower on achievement tests.

Referenced from Designed to Move, a report from Nike, The American College of Sports Medicine, The International Council of Science & Physical Education and several other expert organizations.
www.designedtomove.org

Project Topic

“ Prompting healthy ‘fitness’ activities through interactive, connected installations in the urban environment. ”

It boils down to how can a regular, base level of physical activity be prompted in the urban environment?

The challenge is not about getting active people more active, but about getting inactive people reasonably active.

In-Depth Research to Understand the Opportunity

Six weeks were spent on field and academic research across continents, cultures, and backgrounds.

50

Talks with people using outdoor gyms, considering using outdoor gyms, or not wanting try

25

Different outdoor and indoor fitness classes and experiences tested by the designer

17

Interviews with leading fitness, motivation, and design experts

3

Countries visited for research: Sweden, Denmark, USA

7

Books on behaviour change, gamification, sports psychology, and training reviewed

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Mentored by Danny Stillion, Executive Design Director, IDEO Bay Area



Providing for the Right Users

Current outdoor gyms typically provide already-fit people with simply another option for keeping fit. This thesis intends to properly cater to inactive people.



Target Users

Outdoor gyms are generally intended to get inactive people exercising



Actual Users

The majority of people using outdoor gyms are already active



Bridging the Gap?

How can we get the inactive people to engage?

The Real Target Users

This project seeks to cater to two types of users, those who simply don't get around to exercise, and those who have a strong aversion to exercise. However, it does not aim to provide cardiovascular exercise, which is better addressed by walking and jogging.

The Typical, Moderately Inactive Citizen

"Next Year I'll Get Fitter"



Convenience and a nudge to get started are the key points. These users don't want the hassle or image of dressing up in sportswear just to keep healthy.

Those Who Class Themselves as "Non-Sporty"

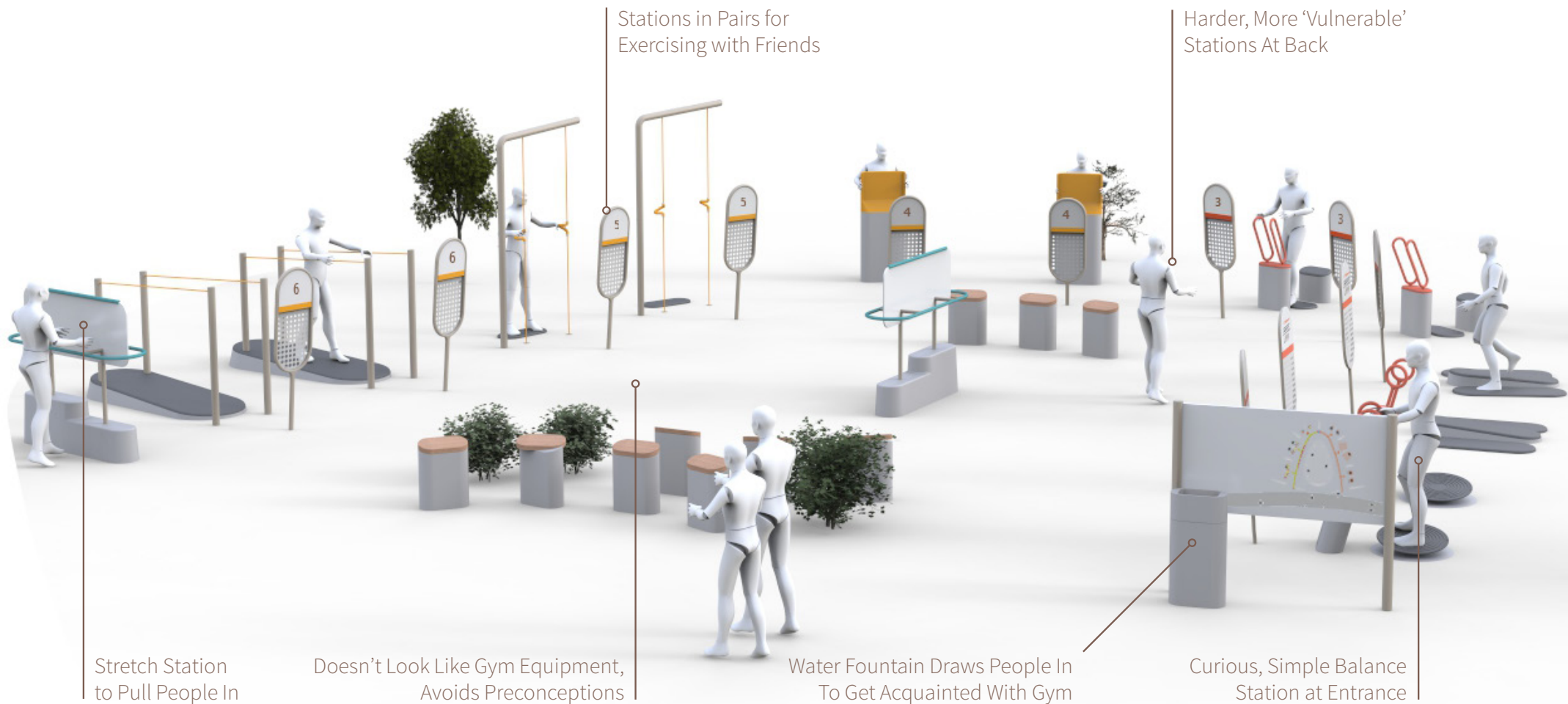
Learned Avoidance or Learned Hopelessness



People who typically had a hard time at school in sports classes, and have grown up believing that exercise is just "for other people".

An Introduction to Healthy Fitness

Stop at the water fountain for a drink, Step on the balance board out of curiosity,
Follow the arrows that pop up... Welcome to convenient, fun fitness.



Rethinking Existing Outdoor Gyms

Outdoor gyms are well intentioned, but most people avoid them. Health Loop is designed differently—it's surprisingly entertaining, confidence-inspiring, and relevant for the goals and abilities of normal people.



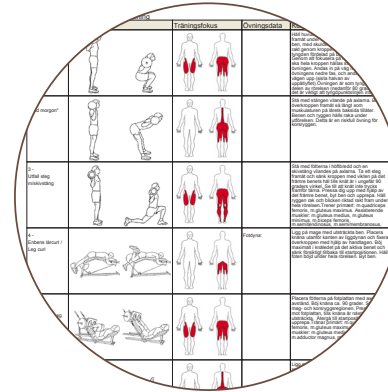
Problem: Intimidation

Equipment is too difficult and intimidating, highly athletic people using it are offputting



Solution: Looks Unlike a Gym

Friendly, curious equipment avoids preconceptions, weight settings are hidden, inappropriate for power users



Problem: Lack of Understanding

Most people don't know how to use equipment or plan a workout, and are afraid of looking incompetent



Solution: Intuitive, Simple Stations

Simple language, digital guidance, and correct ergonomics by design make it easy and safe to start



Problem: Lack of Enjoyment

Working out is an acquired taste, it often feels boring, inconvenient and is simply unpleasant

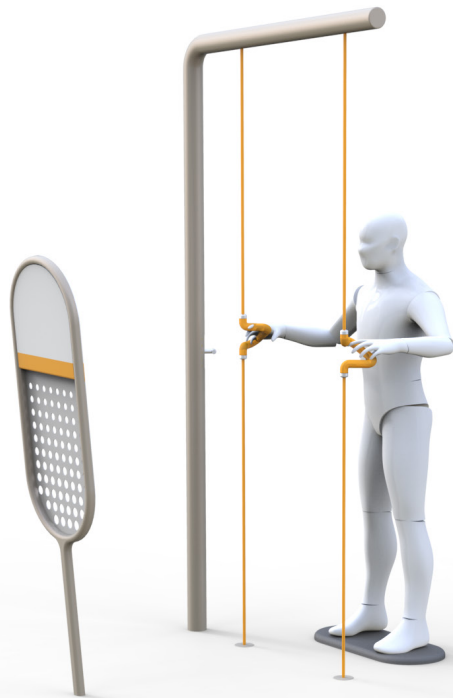


Solution: Fun Challenges

Provided by a simple display and sensors. 90 second exercise stations provide benefits for regular people

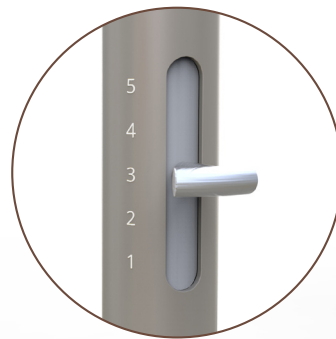
Issue 1 · Intimidation and Approachability

Providing an environment and equipment people can be comfortable with

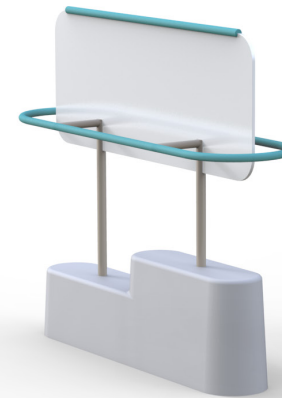


Signage gives user something to focus on, rather than “looking at people looking at me”

All exercises are performed standing up in ‘respectable’ positions



Difficulty/weight settings are hidden from onlookers



Equipment is unsuitable for weightlifters, show-offs, and serious athletes



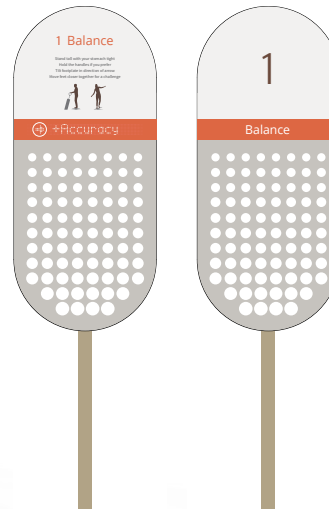
Stretch or sit for an easy first step or while getting a feel for the environment

Issue 2 · Understanding How to Start and Use

Getting over the 'What do I even do?' barrier and providing confidence



Numbered circuit, starting
at easiest station



Intuitive, clear forms
and colours

Clear instructions in non-sporty, simple
language, with real user silhouettes



Instant-start digital instructions
as soon as the user steps on
(‘tricks’ potential users into getting started)

Issue 3 · Fun and Engagement

Providing fun and stimulating yet simple challenges at each station

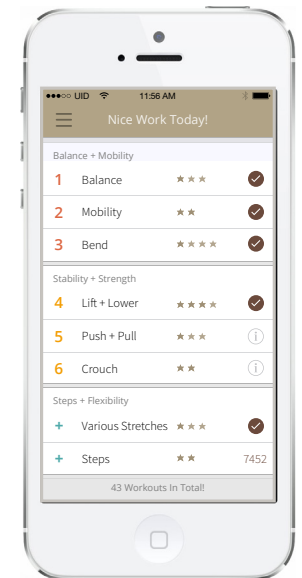


Fun, challenging 1.5 minute programs using game mechanics. The challenges are mentally stimulating and awards for success provide encouragement



Minimal time investment: five minutes to complete three stations, or ten minutes to complete all six

Proven through functional prototypes and success of game systems such as Dance Dance Revolution



App tracks progress and provides incentives to return. It includes a pedometer to trigger further use

Encouraging the First Use, and Return Uses

Designing for two key moments in the user journey

First Use: Pulling People In *Habit Commitment*

Building on Potential Users' Actual Thirst and Intrigue

The water tap and signage at the entrance gives people a reason to stop, and allows them to observe and get familiar with the space without feeling socially awkward (as in just standing and watching people).

Simple, Curiosity-Inspiring Interactive Signage

Each station's signage is exceptionally clear and visually attractive to look at, and the LED screen can draw people over with text prompts and animations. It's something people have never seen before, inspiring curiosity.

'Doing It Before You Realise' Auto-Start Stations

As soon as a user steps on an exercise station just to see how it feels, the screen prompts them to do the first move. It doesn't tell them they're working out, merely following one instruction at a time, thus unwittingly committing users to short exercises.

App Installation at Height of Motivation

Health Loop will prompt new users to install the app via Bluetooth notification simply as they walk away after first use, when they are at a peak of motivation.

Return Use: Bringing People Back *Habit Maintenance*

Celebrating Progress

If users are carrying their phone with them (and the app installed), even without taking it out of their pocket the exercise stations can display and celebrate their improvements.

Variation and Developing Challenges

The stations automatically adapt and challenge return users, based on how they're performing and based on their past progress.

Mentalling Associating with Walking

The inclusion of a pedometer in the app is deliberate: as users workout they see that they can (and should) also receive points by walking, and vice versa, if they're walking, they should also be visiting a Health Loop for maximum points. Over time users can develop a mental relationship prompting both types of exercise, whether they consciously consider it or not.

'Personal' Fitness Prompts

Research shows remembering a user's name and prompting them in a conversational manner improves compliance.

The Social Experience: Bringing a Friend

One of the most effective ways to get someone started—how does Health Loop support this?

Health Loop is designed to be suitable for both people working out alone or in pairs (or more).

Stations Angled Away from Each Other

This subtle angle means strangers working out next to each other face away, providing privacy. Conversely, if they're friends, they're still close enough to talk, and it's easy to turn and face each other.

Focus-Based Privacy

A lot of people dislike noticing other people looking at them when exercising, so Health Loop keeps each user's attention on their own station. The interactive display achieves this, and the large signage also provides additional frontal privacy, whilst also affording public safety through no opportunity for people to conceal themselves.

Socially-Considered Resting + Waiting Zone

The semi-standing stools provide a comfortable place for friends to wait, whilst also not forcing them to awkwardly stand by, with no place to sit. This is important if one person in a group wants to try the Health Loop, and the others do not at that moment.



Interactive Signage

Approachable, optimistic, and engaging regardless of knowledge level

Relevant, simple titles

Clear, 'laymans' description

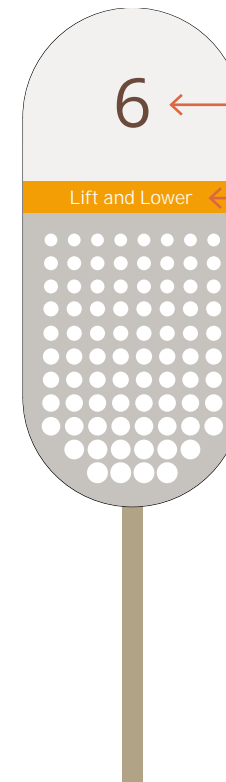
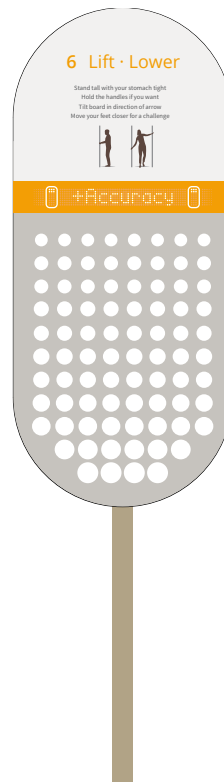
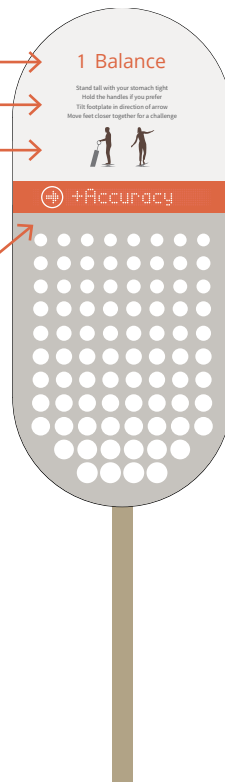
Realistic user silhouettes

LED matrix display for guidance

Customised display hole pattern and decal for each station, to suit the different exercises



The thoughtful presentation of the matrix display presents it not as antiquated technology, but as attractive, intentional design. This also allows it to age gracefully, not as a high tech display that will look outdated in just a couple of years.



Clear numbers for wayfinding

Relevant, simple titles

Privacy-affording, yet safe-to-see-through perforations

Privacy Through Distraction

Through research we heard that users disliked “looking at others looking at them” whilst exercising. By engaging everyone with their own dynamic displays this ensures everyone is paying attention to their own station, and no one else, thus providing a feeling of privacy without having to visually segregate people.

Stations 1-3: Walking and Agility

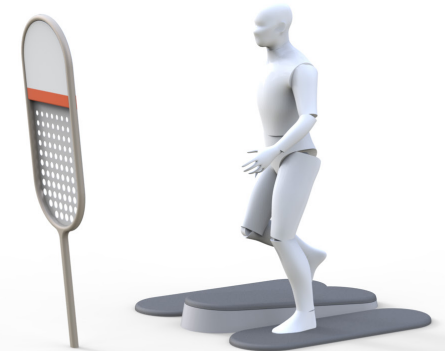
Intuitive exercises to improve
everyday mobility and comfort

Utilising bodyweight, these stations provide
a particularly fun and unthreatening start, and
don't look anything like gym equipment

1 · Balance



2 · Mobility



3 · Stability



1 · Balance

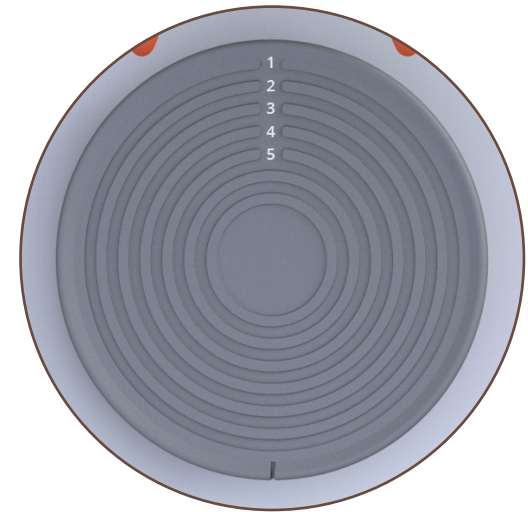
The easiest and most curious station, to be placed at the entrance



The Balance station is the closest to the entrance (in the recommended configuration) and is intended to spark curiosity and provide an easy, fun start



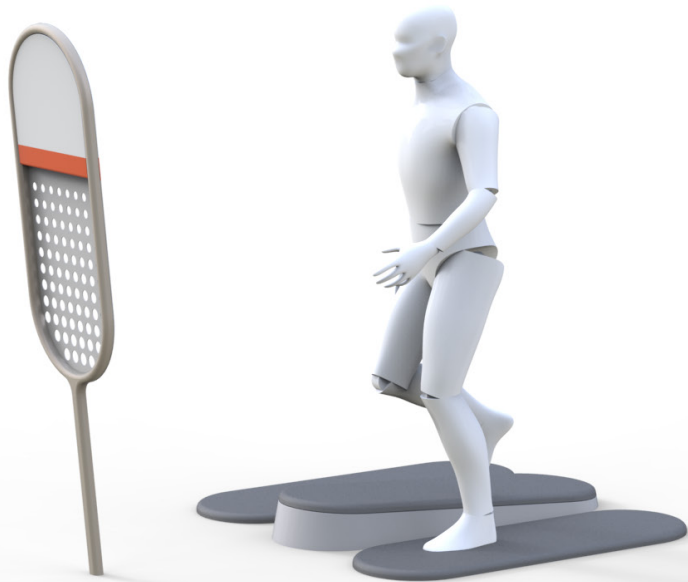
When stood on, instructions appear with “Lean Left”, “Lean Right”, and so on, immediately engaging the user



Five levels of difficulty are provided by the user moving their feet closer. They can also not hold the handles, or stand on one foot

2 · Mobility

Improving overall agility, this station helps with basic movements and avoiding missteps: helpful for walking on uneven surfaces and recovering from tripping up



The Mobility station develops overall physical mobility and coordination. The display indicates the order and timing of movements



The station has nine pressure sensitive foot positions, with the display indicating which points to step on ("1" to "9")

The lower end is suited for people with less mobility, and quicker players will be challenged with the higher front foot position

3 · Stability

Helpful for crouching down and lifting up—for example lifting children, carrying heavy things up stairs, or putting things in cabinets and shelving



The Crouch station is for performing squat exercises, a crucial exercise for general stability and movement

Many handgrips are possible for users to comfortably support themselves

The concrete wall prevents users from positioning their knees dangerously far forwards

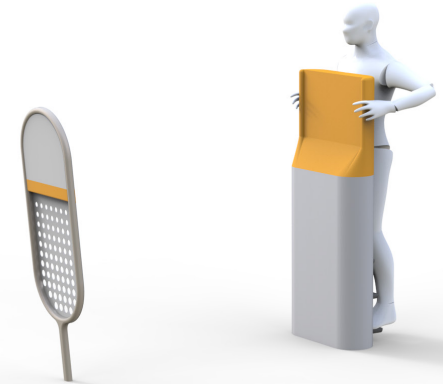
The “seat” provides a psychological assurance of safety, as well as physical help if users go too low for their own ability and couldn’t otherwise get back up

Stations 4-6: Everyday Movements

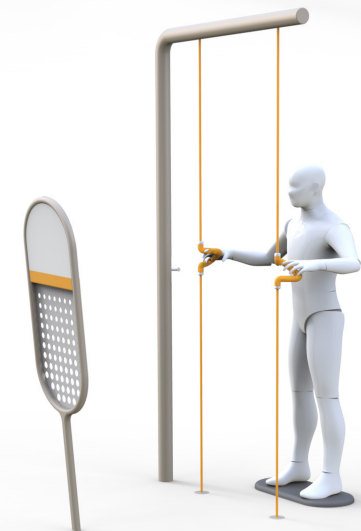
‘Friendly’ machine-based exercises for posture and real-world movements

Each station provides two exercises in one by providing resistance in both directions. The resistance is adjustable from level 1-5, with fun, ‘unpredictable’ digital guidance.

Stretching Stations



Drinking Fountain and
Introductory Signage

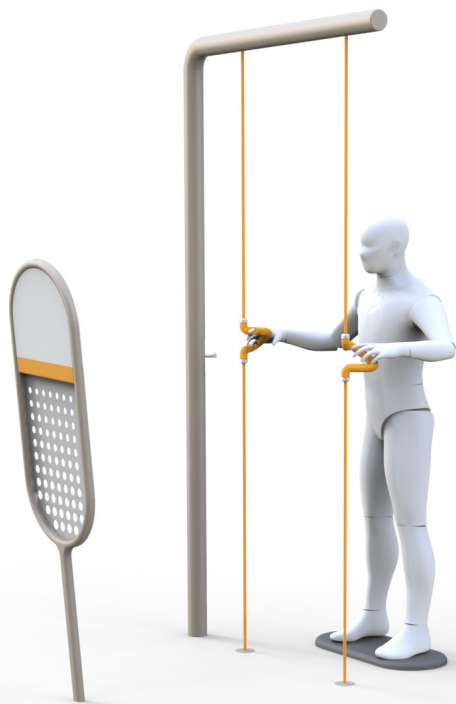


Semi-Standing Steating

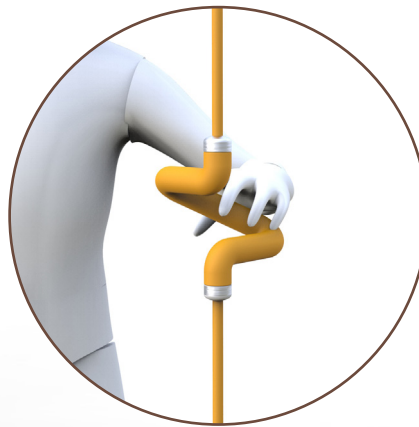


5 Lift and Lower

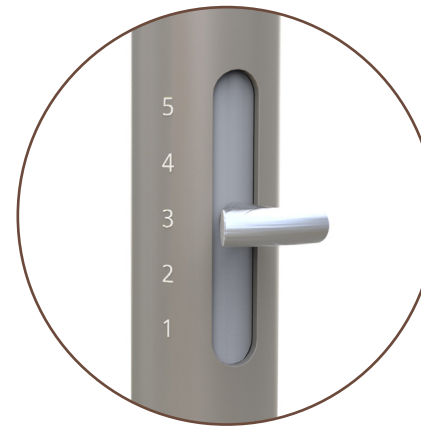
Directly helpful to lifting and moving things around, and maintaining shoulder function



The Lift and Lower station integrates a shoulder press on the way up, and an extended lateral pulldown (also activating the triceps) on the way down



The handle provides a neutral position for the wrist, and connects the cable together



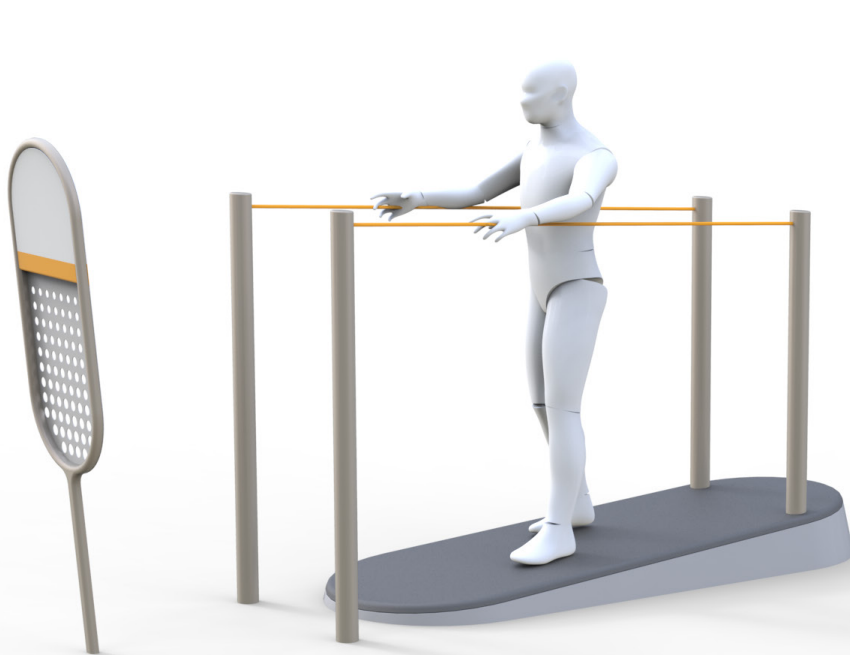
Simple adjustment, with the difficulty setting reasonably hidden from onlookers



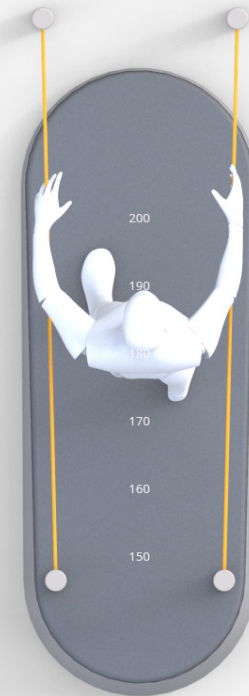
The two separately-moving cables help to rehabilitate and avoid muscular imbalances

6 Push and Pull

Great for posture and for those times a door is particularly heavy or something needs pulling on



The Push and Pull station provides a chest press and back row, with an ergonomic size range for all users



The cable-based movement requires the use of stabilising muscles, providing a better, safer workout, and helping users to develop resistance to everyday injuries

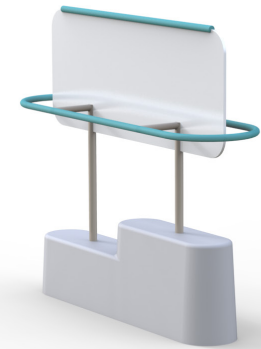
Users simply stand at the marking that indicates their height, and this will locate them at the ergonomically-optimal position

Accessories: Reasons to Approach and Linger

Equipment which draws people over and allows them a few minutes to become familiar and comfortable with the space

User research indicated there's a psychological turning point once a user spends a few minutes at once of these locations: users need a little time to see what to do and get comfortable with exercising in the public eye

Stretching Stations



Drinking Fountain and
Introductory Signage



Semi-Standing Seating



Stretching Stations

A draw for runners and walkers, and a great 'excuse' to stop and observe the Health Loop, to get acquainted with it



Multiple stretching stations at the entrance and inside the gym space allow walkers and runners to stop for a minute and observe, for gym users to take a rest break, and for people who aren't yet ready to exercise to 'do a little something and feel good about it'.

Entrance (Water Fountain and Signage)

An accessory not to be marginalised—drawing people over, and an excuse to observe and learn



Intended Information

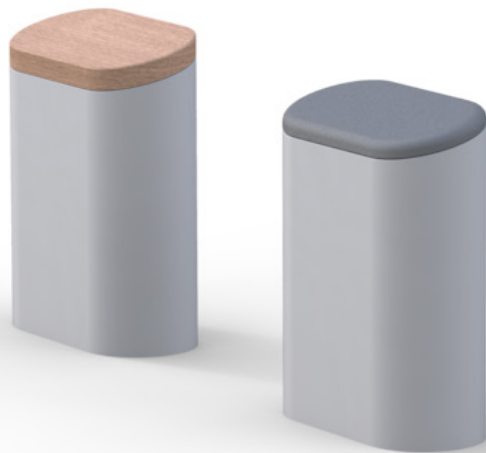
Alternative ways to learn more and get started

- App with video
- Website
- Free instructor hours
- Women's only hours

The water fountain is intended specifically to draw people over and get them to observe the gym or read the sign for a couple of minutes, to spark their interest and to gain familiarity. The large, clear sign emphasises simplicity and the gym's appropriateness for average people. It refers to health, not sport.

Seating

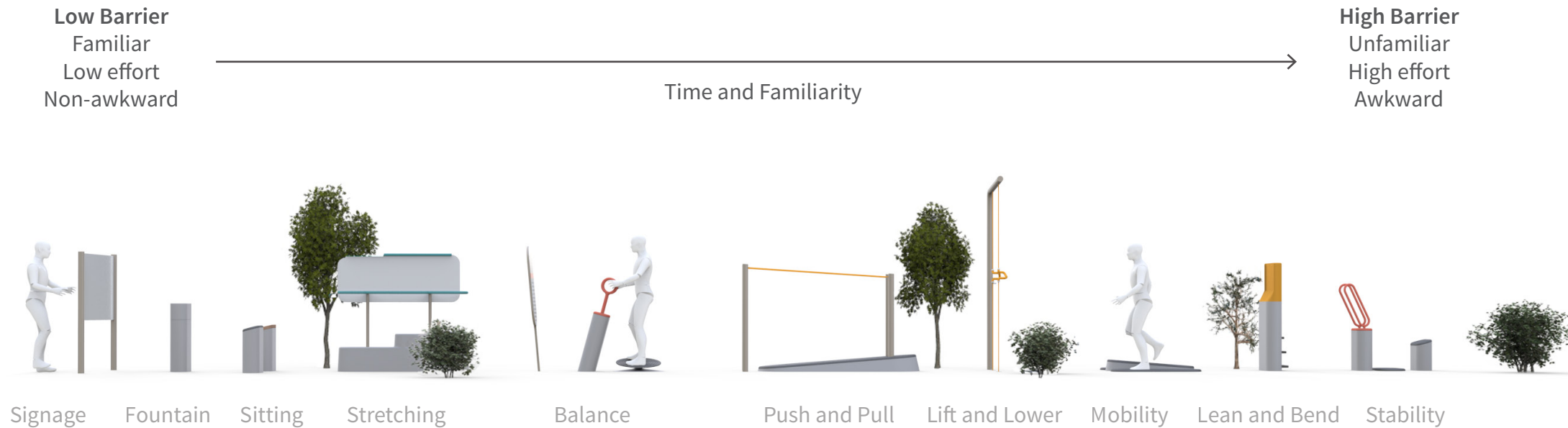
A comfortable place to perch—to wait between exercises, or while friends try or finish exercises



The seating provides temporary seating for users and passersby, and normalises the gym with familiar outdoor furniture. A key use case is if three people walk past, and one wants to try the gym, the other two can comfortably sit and wait. The seating uses a semi-standing position to encourage temporary usage and also cannot be used for sleeping overnight.

Progressive Usage Over Time

An easy progression, and not expecting users to start with complete confidence and ability

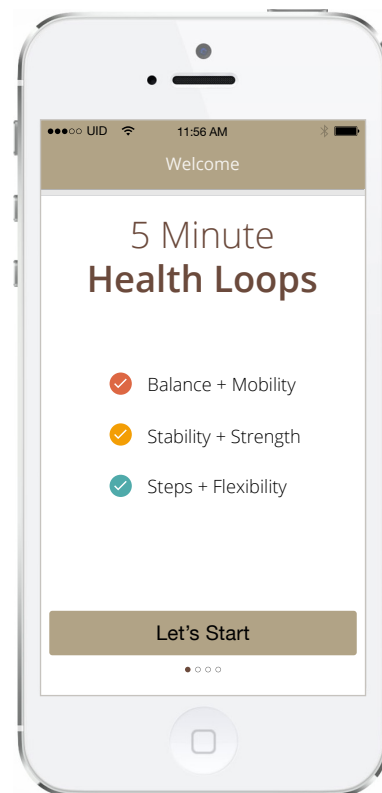


Health Loop is designed to provide an easy start for everyone, regardless of their level of fitness or confidence in exercising in public. User research showed that users typically start using gyms in stages, first walking past a few times to see how they work, then using one or two machines, and slowly more over time. Health Loop is designed for this behaviour.

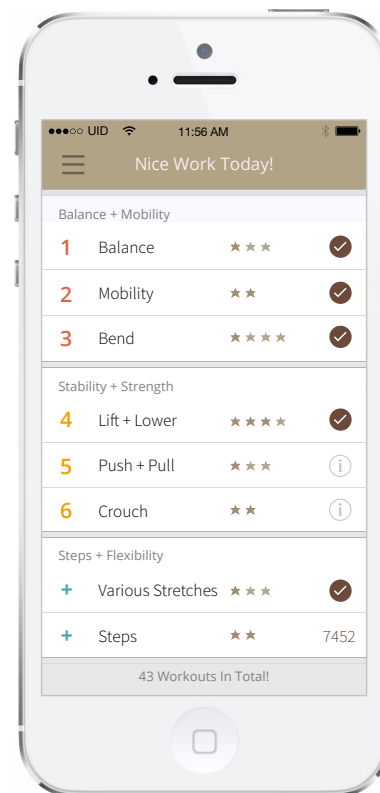
Increasing Engagement · The Health Loop App

A purposeful companion app: progress tracking, providing variation, and providing instruction

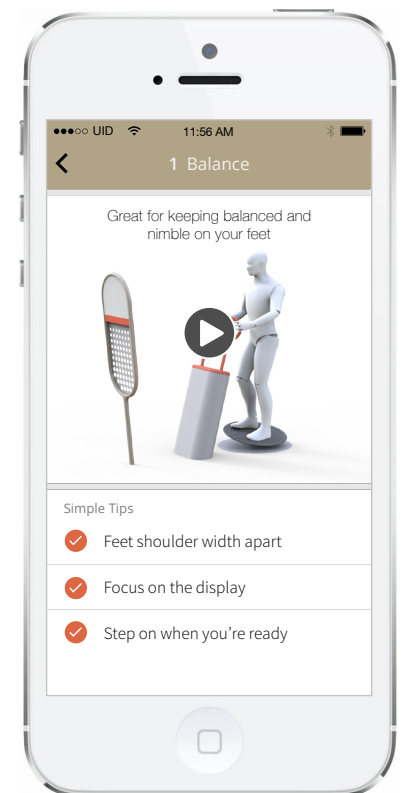
The companion app provides guidance, celebration of progress, and integrated step counting. The step counting is an intentional 'hook' to get users to associate walking with exercising at the Health Loop, and also to reward users for walking to and from the Health Loop.



Clear benefits



Simple for beginners



Enjoyable progress

Manufacture, Installation, Adaptation Over Time

The feasibility of the Health Loop: low cost, durability, simple installation and re-use

Manufacture

Health Loop is built from basic materials: concrete, rubber, and piping, and from common profiles, to keep costs down. The materials are selected for their cost, durability, and ease of production, fitting appropriately into the urban landscape.

Installation

Installation is a simple process, with each station able to be unloaded prefabricated off of a truck, with a few final installation steps on site, including installing the signage and connecting each sign via durable data cable to its respective station. Flooring can be specified as suited to each site.

Power

Health Loop requires a small power supply, which could be delivered through connecting to the grid, through solar power, or potentially through self-generation, where each station generates its own power during usage. This has already been implemented by other outdoor gym installations

Adaptation

The modular nature of Health Loop allows more stations to be added as popularity increases, or the replacement of specific stations due to improved designs or wear and tear. The simple installation also means the stations can be easily relocated, perhaps due to shifting demand, or with the seasons.

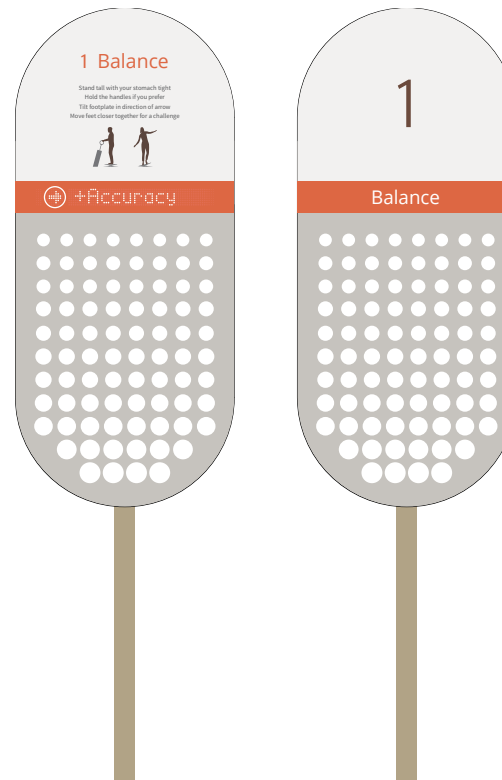
Branding, Language, and Positioning

A lighthearted, friendly, realistic image and tone of voice

Health, Not Sport

Health Loop is called Health Loop for a reason: it's for normal people looking to improve their health, and to avoid connotations of unpleasant gyms and requiring sporting ability.

The language used is deliberately simple, avoiding any sports terminology, and always relates the exercises back to real world applications. In other words, it's easier to approach and understand a station called Lift and Lower than a station called Combined Shoulder and Lat Pulldown/Tricep Press. And it's easier to understand the everyday benefit.





1

Balance