



社創參考例子

Social Innovation Cases

CONTENTS

| | |
|--|----|
| 1. Solutions for disabled people | |
| 1.1 Convenient Electric Wheelchair (Hong Kong) | 2 |
| 1.2 IWheelShare | 3 |
| 1.3 Barrier Free Locker | 4 |
| 1.4 Feelif Device | 5 |
| 1.5 Sign Language Translator Gloves..... | 6 |
| 1.6 AVA Instant Record Live Chat | 7 |
| 1.7 WoeBot (Chatbot) | 8 |
| | |
| 2. Solutions for children and youth | |
| 2.1 智修室..... | 9 |
| 2.2 ECO | 10 |
| 2.3 Miao (Chatbot) | 11 |
| 2.4 Xploro | 12 |
| 2.5 THINX..... | 13 |
| | |
| 3. Solutions for the elderly | |
| 3.1 智能煮食系統..... | 14 |
| | |
| 4. Solutions for the homeless | |
| 4.1 Free on A Tree | 15 |
| | |
| 5. Solutions for sustainable living | |
| 5.1 Evolvable Walking Aid | 16 |
| 5.2 Flo..... | 17 |
| 5.3 Guppyfriend | 18 |
| 5.4 AirCool..... | 19 |
| 5.5 Plastic bottle air conditioner | 20 |
| | |
| 6. Solutions for better healthcare | |
| 6.1 Babylon (Chatbot) | 21 |

Convenient Electric Wheelchair (Hong Kong)

Portable and economic electric wheelchair

https://hk.on.cc/hk/bkn/cnt/news/20180415/bkn-20180415180748082-0415_00822_001.html

Category: Solutions for disabled people (physical)



Social problem:

Electric wheelchairs are importable since they cannot be folded and are very bulky. They are also pricy for solitary grass-root elderly.

Function:

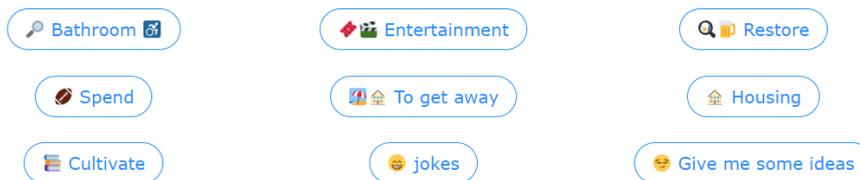
The students invented a device to transform ordinary wheelchairs into electric wheelchairs. They are easy to install and unload, and much economic than purchasing new electric wheelchairs.

IWheelShare

An app that locates barrier-free facilities for the disabled

<https://www.iwheelshare.com/>

Category: Solutions for disabled people (physical)



Social Problem:

Sometime it poses difficulties for the disabled to go out as they are not clear where the barrier-free facilities are.

Function:

This app provides nearby bathrooms or transportation information for the disabled users so that they can enjoy their trip.

Barrier Free Locker

A device helps visually impaired to identify empty lockers

<https://www.youtube.com/watch?v=I7IInV3wUvA>

Category: Solutions for disabled people (physical)



Social Problem:

Finding an unoccupied locker takes effort for some normal individuals. It would be more so difficult for the blind. They can hardly locate lockers and they cannot utilize this facility.

Function:

The phone will vibrate and emit sound to indicate an unoccupied locker when they use the app. The locker will include a remote control for the user. The lockers' LED panel will flicker and emit sound when they press the button.

Feelif Device

A digital device provides multi-sensory contents for the blinds

<https://www.feelif.com/>

Category: Solutions for disabled people (physical)

Find Feelif that is right for you

| | FEELIF GAMER | FEELIF CREATOR | FEELIF PRO |
|--------------------------------|--|---|---|
| |  |  |  |
| Device powered by Samsung | Smartphone with 5,2" screen | Tablet with 9,6" screen | Tablet Tab S3 with 9,7" screen |
| Purpose | Gaming, Smartphone for blind | Education and Gaming | Creating multisensory content for blind Education and Gaming |
| Tactile resolution relief grid | Lines • Grid with 20x10 fields  | Standard • 29x21 dots  | Professional • 58x42 dots • High density grid • Adaptive density for beginners and advanced users  |
| Complementary applications | 2 games of your choice | 1 educational app of your choice 1 game of your choice | 2 educational apps (Geometric functions & Draw) 2 games of your choice |
| Included demo applications | Games | Education and games | Education and games |
| Feelif specialized software | | | Feelbook Creator - specialized software for sighted people for creating multisensory content for blind for all Feelif devices |
| Device warranty | 2 years | 2 years | 2 years |
| Money-back guarantee | 14 days | 14 days | 14 days |
| Screen resolution | 720 x 1280 | 1980 x 800 | 2048 x 1536 |
| RAM | 2 GB | 1,5 GB | 4 GB |
| Storage options | 16GB + microSD | 8GB + microSD | 32GB + microSD |
| Price | 599,00 € | 1.299,00 € | 2.099,00 € |

Social Problem:

The blind cannot use phones conveniently. They can only rely on the voiceover function embedded in phones.

Function:

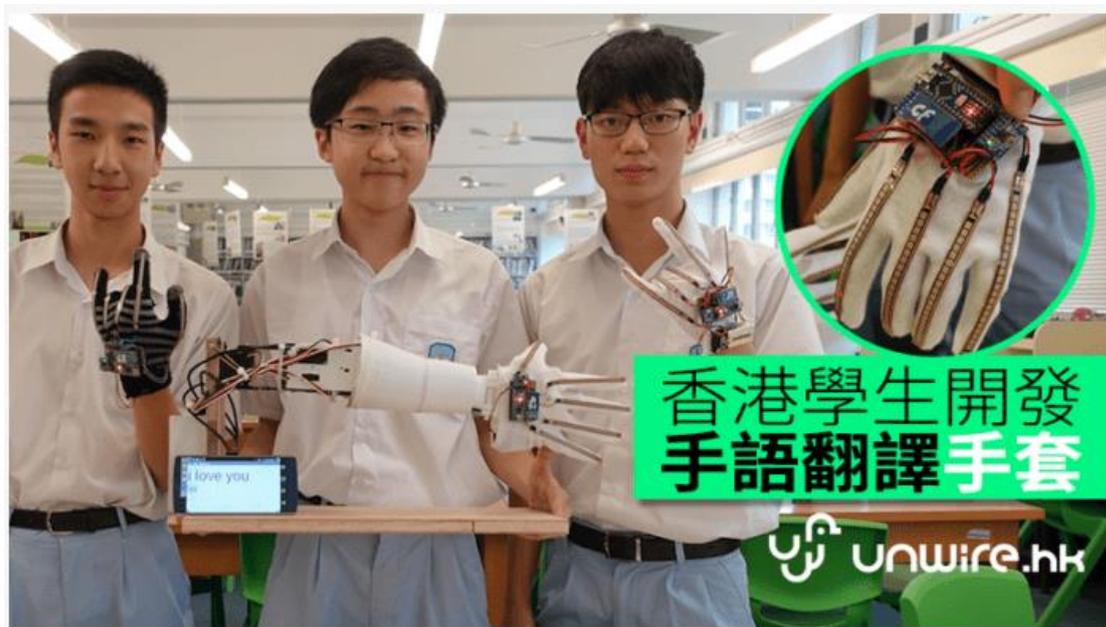
Feelif collaborated with phone producer Samsung to manufacture phones dedicated to blind users. The phones are equipped with tactile resolution relief grid so that the blind can enjoy multi-sensory contents.

Sign Language Translator Gloves

A glove enhances communication between sign language users and non-users

<https://unwire.hk/2017/04/24/sign-language-translate-glove/people-interview/>

Category: Solutions for disabled people (physical)



Social Problem:

It is hard to translate sign language as different body poses will result in different interpretations.

Function:

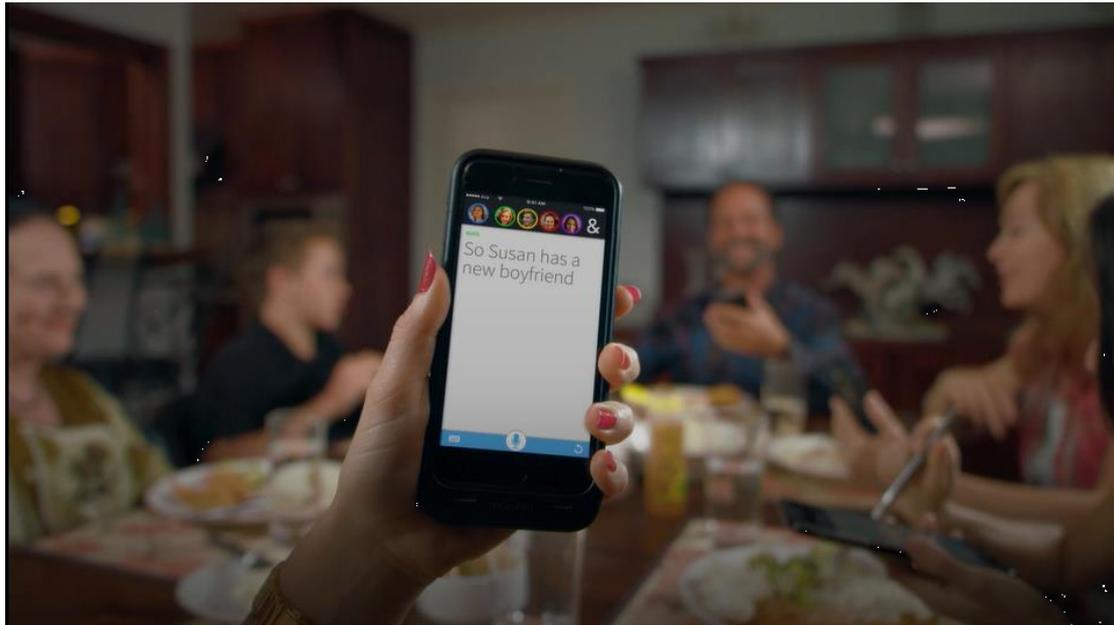
The gloves consist of Flex sensor, Gyroscope and a Bluetooth device. The sensor in the gloves will detect the movement and translate the sign language to English or French. The accuracy is high, at 85%.

AVA Instant Record Live Chat for the Deaf

A device enhances social interactions for the deaf

<https://vimeo.com/190619819>

Category: Solutions for disabled people (physical)



Social Problem:

It is tough for deaf people to catch up with a group conversation or meeting, even if they know how to read lips.

Function:

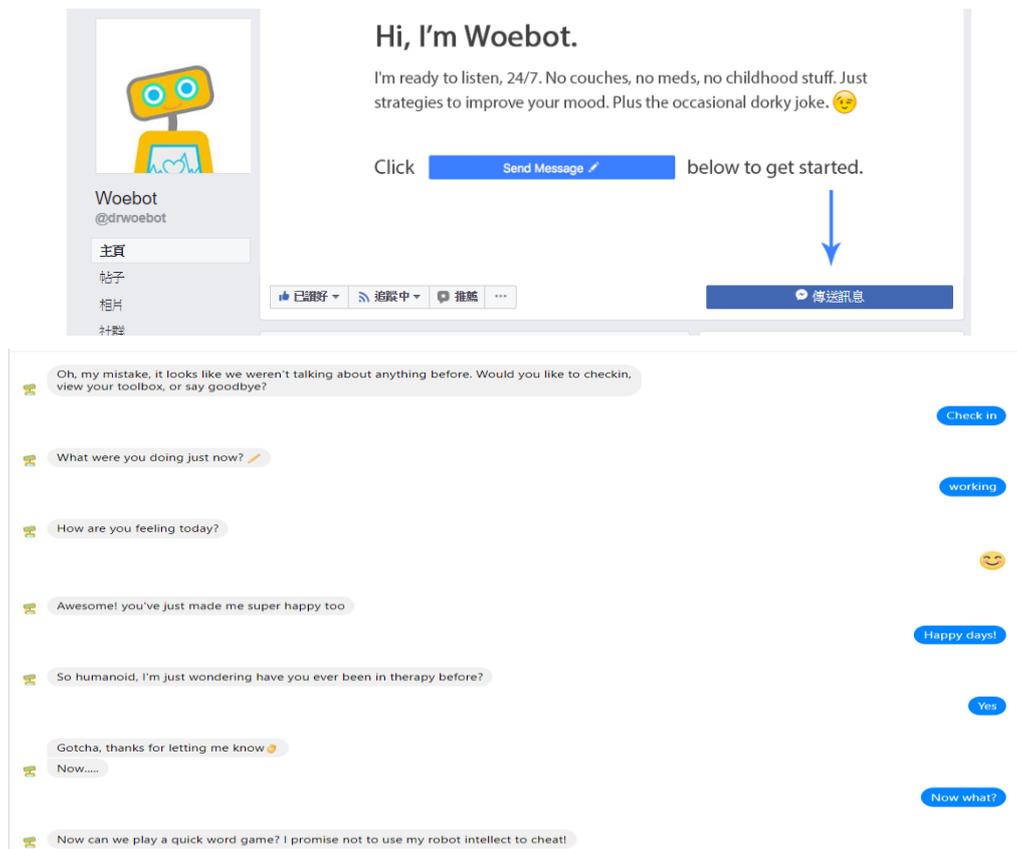
This app provides a free instant live chat for deaf people as well as the people around him. The deaf can catch up with the conversation as the screen will show the conversation content.

Woebot (Chatbot)

An application that helps releasing stress

<https://woebot.io/>

Category: Solutions for disabled people (mental)



Social Problem:

There is an increasing number of people who suffer from mental illnesses, such as depression and anxiety.

Function:

This chatbot uses machine learning technology to understand the users' situation and respond in an appropriate manner.

智修室

A e-system to monitor utilization of study room

<http://www.takungpao.com.hk/hongkong/text/2018/0627/180247.html>

Category: Solutions for children and youth



Social Problem:

People often save a seat for themselves, and the library is not as quiet as it is supposed to be.

Function:

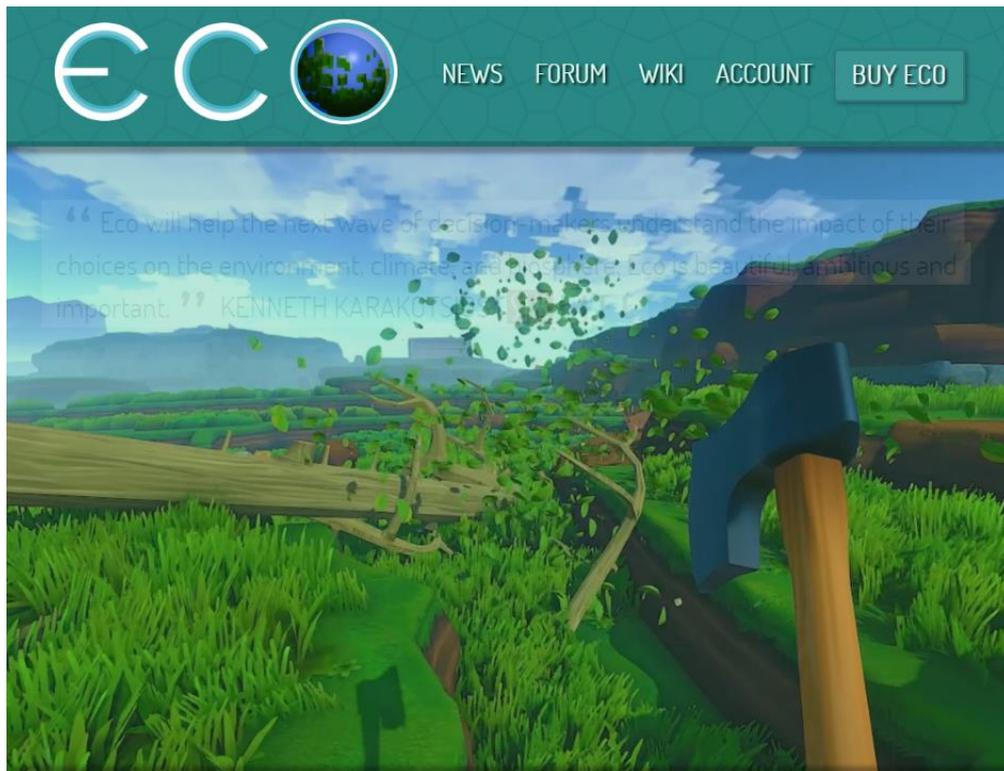
The device uses decibel meter, infra-red sensor and ultrasound detector to help librarians monitor the study room. If the noise exceeds the pre-determined level, the device will send signal to librarians. The ultrasound detector can also distinguish whether a person is using the seat or not.

ECO

A game that raises consciousness on protecting environment

<https://www.strangeloopgames.com/eco/>

Category: Solutions for children and youth



Social Problem:

It is hard for children to understand “their choices matter” through reading textbooks, as they may find it unattractive.

Function:

This game is an online game where players must collaborate to build a civilization in a world where everything they do affect the environment. All resources come from a simulated ecosystem. Through this game, children can understand their power in being environmentally friendly.

Miao (Chatbot)

Educational chatbot which teaches math

<https://www.messenger.com/login.php?next=https%3A%2F%2Fwww.messenger.com%2Ft%2FMiaoAcademy>

Category: Solutions for children and youth

What is Sleep? 😴

I'm always here to help you all around the clock

Abacadabra! 🪄

I've been doing my math homework, ask and you shall receive an answer

Let's be friends! 🤖

I love meeting new people! Talk to me about anything

Concepts 📖

Theory-based questions such as definition/method queries.
 For example:
 What is L'Hopital's Rule?

Word-based abc

Text-based questions, which are usually given as homework!
 For example:

Equation-based 1 2 3 4

Homework questions that involve equations.
 For example:

$$\frac{\sqrt{w+4}}{2}$$

Social Problem:

Most online learning platforms cannot answer your questions. Instead, they show you the concept and you need to digest it yourself. However, sometimes the questions are just too hard that you need help.

Function:

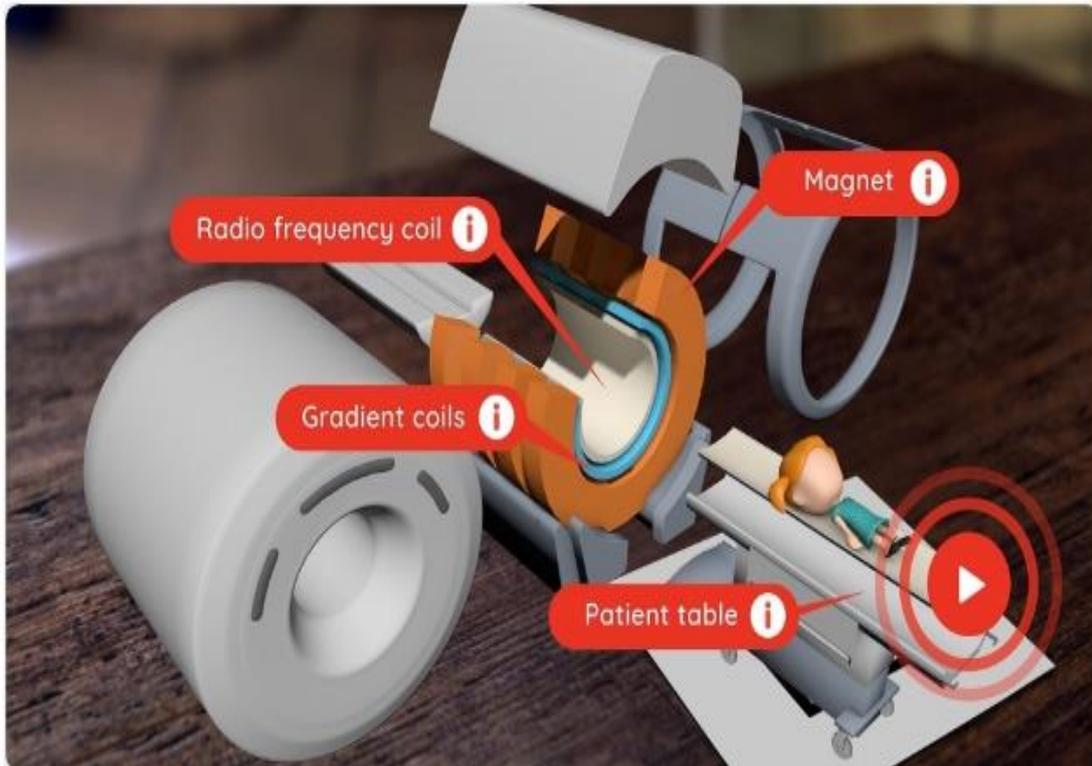
This chatbot will teach you and solve your math homework.

Xploro

A mobile app that delivers real-time hospital information

<https://xploro.health/>

Category: Solutions for children and youth



Credit: Corporation Pop

Social Problem:

The information preparing children for hospitalization is poor. This often leads to children's anxiety and stress. Hospitals also do not have enough play staff to prepare the children for medical procedures.

Function:

It is a mobile application that uses augmented reality (AR), gameplay and artificial intelligence (AI) to deliver health information to patients.

THINX

A reusable underwear that is period-proof

<https://www.shethinx.com/>

Category: Solutions for children and youth



Social Problem:

Some girls bleed like a river and there is not much they can do about it other than changing sanitary napkins very regularly, except this is environmentally unfriendly too.

Function:

The washable, reusable underwears absorb your period and are a more sustainable solution than single-use disposable products. They hold up to 2 tampons' worth. Depending on the flow (light, medium, heavy), THINX can replace pads, tampons, liners, and cups, or be worn with tampons and cups for extra protection.

智能煮食系統

A reminder system to avoid neglect of cooking fire

<http://paper.wenweipo.com/2017/10/03/HK1710030013.htm>

Category: Solutions for the elderly



Social Problem:

Solitary elderly will be in danger if they forget to turn off the cooking stove or other electric devices.

Function:

When the elderly leaves the house, if the system detects the cooking stove is not turned off, the system will alert the elderly through LED light and sound.

Free on A Tree

Gives warmth to homeless by re-matching idle resources

<https://www.abc.net.au/news/2018-06-10/free-on-a-tree-hobart-project-by-student-to-clothe-the-poor/9852996>

Category: Solutions for the homeless



Social Problem:

When winter comes, homeless living out on the streets may not have enough clothes to keep themselves warm.

Function:

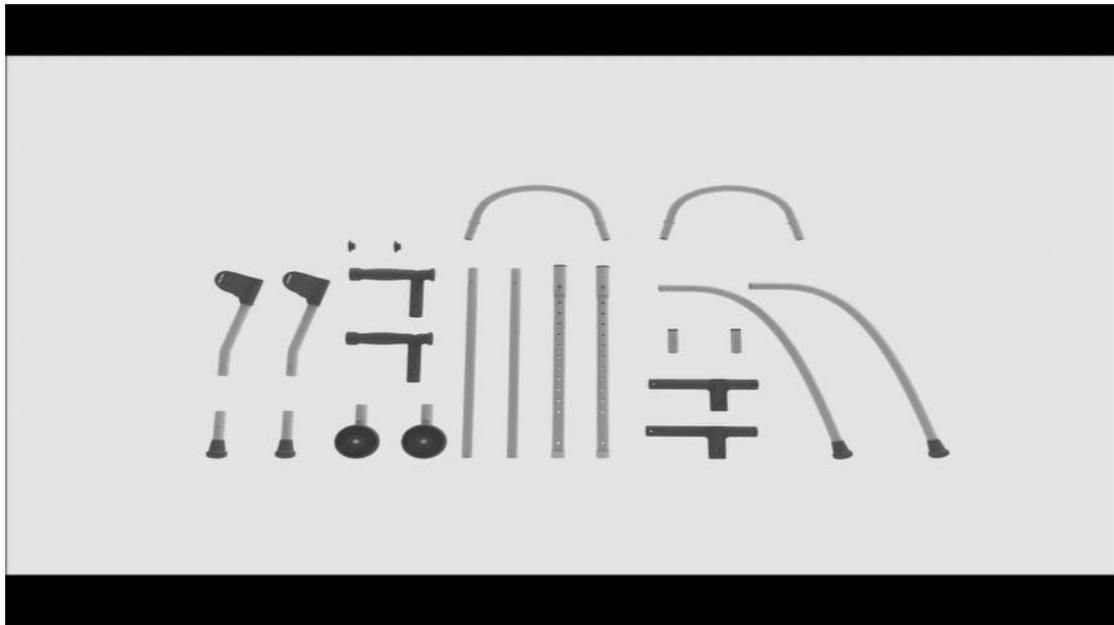
This initiative encourages people to drop their second-hand coats on the donation points. These coats will be picked up and hung on trees in public spaces around the city so that homeless who are cold can take them.

Evolvable Walking Aid

A range of parts can be assembled to walking aid to fit different levels of walking needs

<https://www.nesta.org.uk/feature/inclusive-technology-prize-finalists/evolvable-walking-aid/>

Category: Solutions for the elderly



Social Problem:

The elderly or those who are in mobility rehabilitation often need to buy a whole new walking aid when their mobility condition changes.

Function:

The range of parts can be assembled to make different types of walking aid to offer different levels of support, depending on what the user's needs.

Flo

A device tackles water leakage and reduces water consumption

<https://meetflo.com/>

Category: Solutions for sustainable living



Social Problem:

Water leakages in old apartments or buildings are unavoidable. It is hard to detect if the water leakage is internal.

Function:

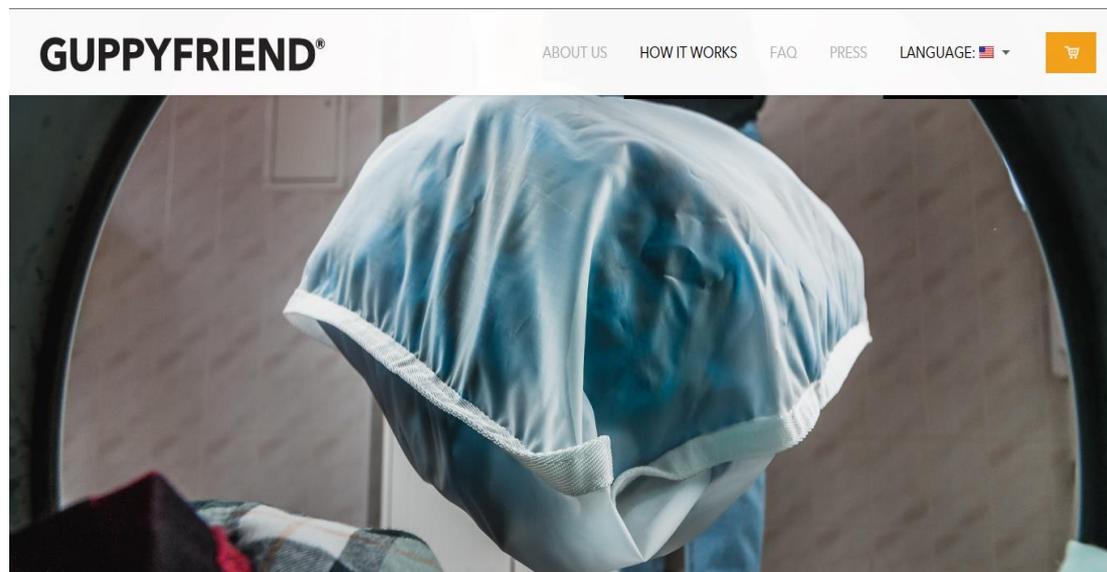
This device is installed on the water pipe to check the water consumption in the apartment. With the app, they can remotely authorise an automatic water shutoff and alert user for maintenance before there is a leak.

Guppyfriend

A washing bag that can prevent microfibers entering the sewage treatment plant or eventually the sea

<http://guppyfriend.com/en/>

Category: Solutions for sustainable living



Social Problem:

With each wash, countless plastic fibers from synthetic textiles are making their way from washing machines into rivers and oceans.

Function:

The Guppyfriend washing bag is a patented solution, that filters out the tiniest microfibers released from textiles during washing. The self-cleaning fabric bag is made of a specially designed micro-filter material. Simply collect the fibers and dispose them of properly.

AirCool

An environmentally-friendly mini air-conditioner

<http://newthingstoday.com/cms/en/root/aircool-24/advertorial/index7?thrive=1>

Category: Solutions for sustainable living



Social Problem:

Traditional air-conditioners are expensive, hard to operate, occupy a lot of space and drain electricity rapidly.

Function:

This mini air-conditioner contains a mini-tank. It allows users to pour cold water into the tank and act as a cooling agent. It also uses less power than traditional air-conditioners. A USB plug power is enough to charge the device.

Plastic bottle air conditioner

Handy and economic conditioner for grass-root

<https://www.straitstimes.com/world/zero-electricity-air-con-made-of-plastic-bottles>

Category: Solutions for sustainable living

What you'll need:

1. Lots of plastic bottles
2. A sturdy board (the size of your window)
3. Scissors or a pen-knife



Step 1: Cut holes on the board, they should be the size of the rim of the bottle. Ensure that the holes are spaced out enough to accommodate the body of the bottles.



Step 2: Cut the bottles in half, crosswise.



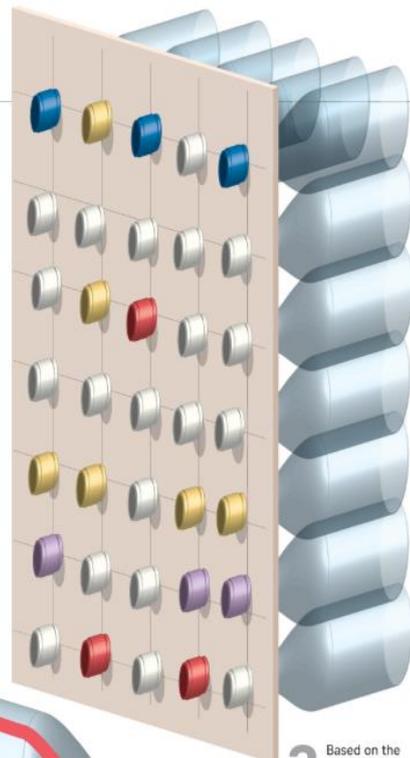
Step 3: Carefully cut away the tops of the bottle caps.



Step 4: Mount the cut bottles on the board. Secure them by screwing on the bottle caps on the other side.

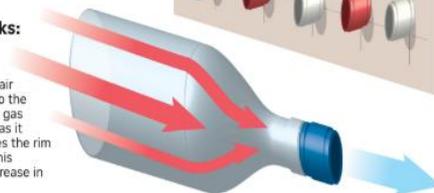


Step 5: Fix your eco-cooler on the window, with the bottle necks facing inwards.



How it works:

1 When hot air rushes into the bottle, the gas contracts as it approaches the rim of the bottle. This results in a decrease in pressure.



2 Based on the Venturi Effect, the drop in pressure results in an increase in velocity, which is what gives the air its cooling effect.

Social Problem:

Air-conditioners are hard to afford for grass root families. In developing countries, electricity is scarce and expensive.

Function:

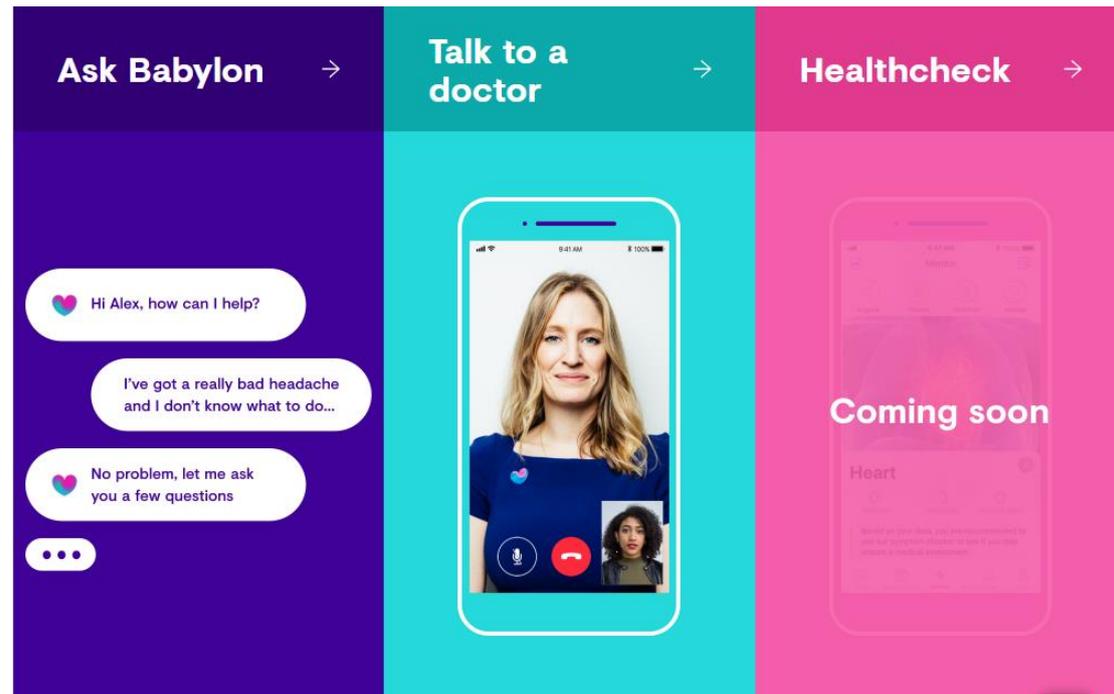
This device is easy to make and effective. The mechanism is similar to traditional air-conditioners, by compressing air to lower the temperature.

Babylon (Chatbot)

A chatbot designed for simple medical diagnosis

<https://www.babylonhealth.com/>

Category: Solutions for better healthcare



Social Problem:

Health services are not accessible and affordable in some places, especially in developing countries or rural areas.

Function:

This chatbot is developed to diagnose diseases. It can simplify the doctor's work and reduces his workload. It also connects your diagnosis result with your doctor.