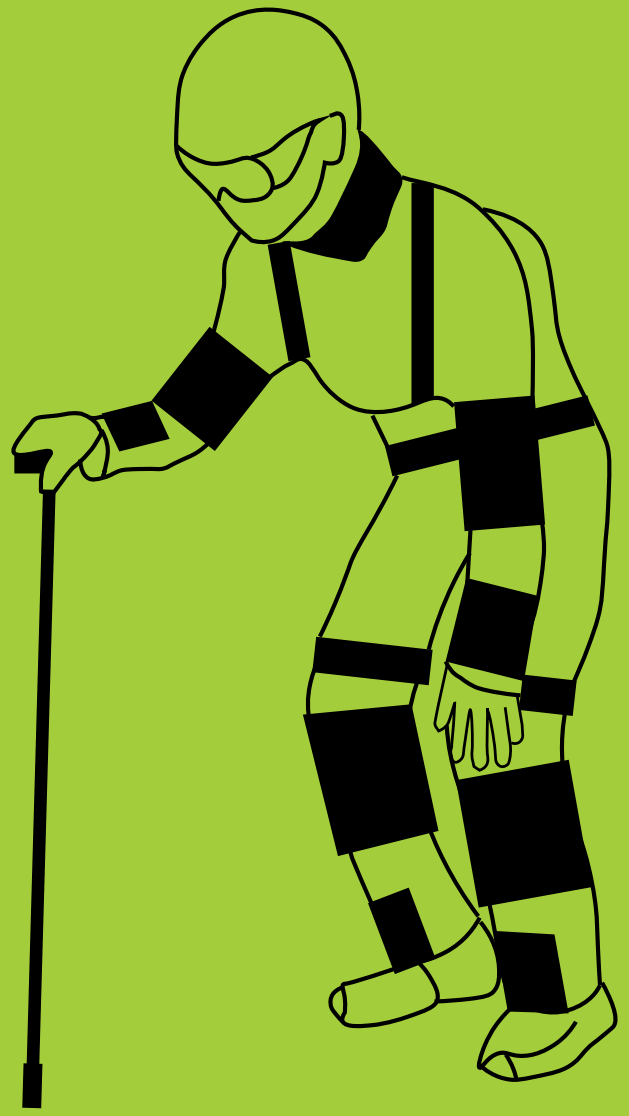
Empathy Tool Manual

Aged
Simulation Suit



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Welcome

to the Aged Simulation Suit
Empathy Tool Manual

Manufacturer Manual [1]

Please carefully read this **Empathy Tool Manual** before using the assisted tools or simulators.

This manual is designed to help you understand the symptoms of old age through the use of the Aged Simulation Suit. Please note that you can access manufacturer's user manual via the QR codes above.

The Empathy Library is exhibited within the Material Resource Centre, Room V510, 5/F, Jockey Club Innovation Tower, The Hong Kong Polytechnic University.

Visit **http://empathylibrary.design** or scan the QR codes on the last page of this manual to access the digital version and for more resources.

Warning:

The Aged Simulation Suit is an educational tool designed to simulate symptoms of old age for enhanced empathy and understanding. Exercise caution to prevent accidents, injuries, or discomfort. Avoid risky activities beyond the suit's capabilities.

Disclaimer:

The use of empathy tools does not equal the full experiences of having a disability. It is best to aim to engage with your target audience, using the tools to prepare better. The Aged Simulation Suit is not a substitute for professional advice or comprehensive knowledge of ageing. Consult a qualified healthcare professional for proper medical management and therapy if you have any medical condition. Use it responsibly, acknowledging limitations and potential risks. The School of Design, the Material Resource Centre, and the creators of this simulator and manual are not liable for any injuries, damages, or misuse of the simulator.

Citation:

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Contents

1. Description of the Simulator

What disability or impairment does this simulate?

The Aged Simulation Suit is a unique tool designed to **replicate various symptoms of old age**. This user manual aims to provide guidance to design students, fostering empathy and enabling them to create universal designs with a deeper understanding of the experiences and symptoms associated with ageing. It is important to note that, unlike other simulators in the Empathy Library, **this suit simulates the natural effects of ageing and does not replicate any specific disease or sickness**. By using the suit, you can gain valuable insights into the challenges faced by aged individuals, facilitating the development of more inclusive and thoughtful designs. While some of us may be lucky enough to avoid any first-hand experience of any disabilities or impairment, at some point, all of us will experience the symptoms of old age.

Old age is a stage of life characterised by a range of physical, cognitive, and sensory changes.
Seniors may experience symptoms such as:

- **Decreased mobility**
- **Joint stiffness**
- **Reduced balance**
- **Muscle weakness**
- **Fatigue**

Cognitive changes, including **slower information processing, memory decline, and difficulty multitasking**, are also common. Sensory impairments, such as diminished vision and hearing, can further impact daily activities and social interactions.

In the context of Hong Kong, a densely populated city with a rapidly ageing population, the design considerations for aged individuals are particularly relevant. Hong Kong seniors may face additional challenges, including navigating crowded environments, accessing public transportation, and adapting to cultural norms.

Hong Kong high-rise buildings, complex infrastructure, and unique urban landscape pose unique obstacles and opportunities for inclusive design.

(Photo Credit: Joseph Chan on Unsplash)

(Photo Credit: Pietro De Grandi on Unsplash)

2. Use & Operation

How to put it on?

The Aged Simulation Suit includes several parts, and here is a list of all the components to help you out.

1. **Simulation suit**
2. **Neck restraint belt**
3. **2x Elbow restraint belts**
4. **2x Knee restraint belts**
5. **4x Wrist weights**
6. **4x Ankle weights**
7. **Folding cane**
8. **Pair of shoes**
9. **Pair of gloves**
10. **Pair of glasses**

This Aged Simulation Suit may seem a bit complicated to put on, but don’t worry; it’s simpler than you think.

1 Put it on!

This suit is designed to be worn over your clothes like overalls and slip-on provided shoes. At first, it may seem a bit complicated, but it’s quite simple and should take just a few minutes to fit.

2. Use & Operation

How to put it on?

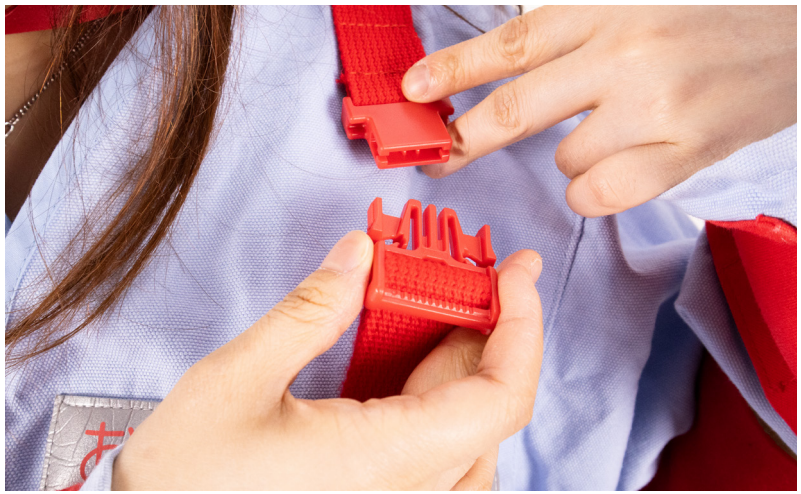
2 Attach and Adjust the Restriction Belts

Strap on the padded cuffs around your neck and each of your knees and elbows, and tighten them to the point that they restrict your movement and are slightly uncomfortable but not painful; they will fasten with Velcro.

Note: If you accidentally mix up the elbow and knee restraints (belts), the smaller restraint is for the knee.

3 Connect the Buckles

Ensure the plastic buckles on the straps are connected around the hip area; tighten or loosen the straps these straps around your waist and shoulders . The curve on the waist can be adjusted by changing the length of the fastening belt.



2. Use & Operation

How to put it on?

4 Put on the Shoes

The straps on the back of the legs should be attached to the heels of the shoes. The range of movement of your legs can also be adjusted by tightening or loosening the straps.



5 Add the weights

Add the small weights to the pockets located around the wrists and the ankles. Depending on the simulation you want to create you can add one or two of the weighted bags. The maximum number of weights should be 2 weights per pocket.
Note: If you accidentally mix up the weights, the lighter ones are for the wrists.


6 Adjust Cane Height

Take out the folding cane from its package, and the cane will unfold and extend into a straight line. Loosen the cap at the top of the cane and press on the round button to adjust cane height. Tighten the cap again before use.

Note: Be careful of the folding cane's spring action when it extends itself the moment you take it out from its package.

7 Put on the Glasses and now, you should be ready to start your empathy exercises!

When training and simulating the experience of old age, it's advisable to carry out the training with at least one, or perhaps even two friends or classmates, to ensure safety. Ask your friends or classmates to check all the straps, restriction belts and buckles and adjust if needed.

3. DOs & DON'Ts

How to embrace and avoid?

DOs

DO wear the suit properly, following the provided instructions, to ensure an accurate simulation of the symptoms associated with old age.

DO take the time to familiarize yourself with the limitations and challenges that the suit presents, encouraging a deeper understanding of the experiences of aged individuals.

DO engage in activities that simulate daily tasks and movements commonly faced by seniors, such as walking, reaching for objects, or getting up from a chair, to gain firsthand insights into the difficulties they may encounter.

DO collaborate and communicate with other students using the suit to share experiences, observations, and ideas. This will foster a collective understanding and empathy towards designing for the aged.

DO consider the impact of sensory changes, including vision and hearing impairments, while designing. Explore ways to enhance accessibility and accommodate these challenges.

DO seek feedback from aged individuals or consult with them during the design process. Their perspectives and insights are invaluable in creating designs that truly address their needs and preferences.

DO maintain a positive and respectful attitude throughout the simulation and design process. Remember that the goal is to promote empathy, understanding, and inclusive design practices.

DON'Ts

DON'T push yourself beyond your physical limits or engage in activities that may cause harm or injury. Always prioritise your safety and well-being.

DON'T assume that the suit fully replicates the exact experiences of aged individuals. Keep in mind that everyone's ageing process is unique, and the suit provides a simulation rather than a comprehensive representation.

DON'T use the suit as a means to mock or belittle the challenges faced by aged individuals. Treat the simulation with respect and empathy, focusing on understanding and designing for their needs.

DON'T overlook the emotional and social aspects of ageing. Consider the potential isolation, feelings of loss, and changes in social dynamics that may impact the daily lives of seniors.

DON'T design in isolation. Collaborate with other stakeholders, such as caregivers, healthcare professionals, and community organisations, to gather diverse perspectives and create holistic solutions.

DON'T make assumptions about the preferences or capabilities of aged individuals based solely on the suit simulation. Always engage in open and respectful dialogue to ensure that designs are tailored to their specific needs and desires.

DON'T break or tear the ankle or wrist weights. Lead balls are used for the weights. Therefore, take the necessary precautions to ensure that the weight bag does not burst and scatter the balls or that small children do not accidentally swallow them.

4. Suggested Exercises & Scenarios

How to build empathy with the users?

Before you try a complex scenario, you should get used to the suit and adjust the suit accordingly. Here are some suggestions of basic tasks:

- **Sit down in a chair and stand up from the seated position**
- **Walk and up down some stairs**
- **Walk up and down a ramp or a hill**
- **Step up onto a chair or a high step**

Now, here are some suggestions for helping you to create your own empathy scenarios:

1 Grocery Shopping:

Visit a local grocery store while wearing the suit and **simulate the challenges** faced by aged individuals when **navigating aisles, reaching for items on higher or lower shelves, and carrying bags**. Pay attention to the impact of reduced mobility, muscle weakness, and decreased balance on the overall shopping experience.

2 Public Transportation:

Take a ride on public transportation, such as **a bus or the MTR**, during peak hours. Experience the difficulties aged individuals might encounter, including crowded spaces, limited seating availability, and the need to maintain balance and stability while standing. Reflect on ways to improve accessibility and comfort for seniors using public transportation.

4. Suggested Exercises & Scenarios

How to build empathy with the users?

3 **Outdoor Mobility:**

Take a walk in a park or public area, simulating the challenges of reduced mobility, joint stiffness, and decreased balance. **Pay attention to uneven terrain, steps, and obstacles that may pose difficulties for aged individuals**. Consider how urban design and infrastructure can be improved to enhance outdoor mobility and accessibility

(Photo Credit: Sakamoto Model Corporation)

4 Bathroom Routine:

Simulate the **experience of completing a bathroom routine**, including tasks such as using the toilet (you can just pretend this one), washing hands, and maintaining personal hygiene. **Pay attention to the impact of reduced mobility, balance, and sensory changes** on these everyday activities. Consider adaptations and designs that can enhance comfort, safety, and independence in the bathroom for seniors.

(Photo Credit: Sakamoto Model Corporation)

These suggested tasks and scenarios aim to provide you with firsthand experiences of the challenges faced by aged individuals in various aspects of daily life. By immersing yourself in these scenarios, you will gain valuable insights and inspiration to create more inclusive and empathetic designs.

5. Designing for Intersectionality by Combining Empathy Tools

How to build empathy with the users?

As design students, it is essential to recognise that the individuals we are designing for may often have more than one impairment or condition. While the simulators provided in this manual offer valuable insights into specific aspects of the user's experience, it is important to remember that real-life situations can be complex and multifaceted.

To deepen your empathetic design methods and create more inclusive, innovative and original solutions, we encourage you to consider using **a combination of empathy tools** together. By combining simulators, such as wearing the **Aged Simulation Suit** along with **a Wheelchair or Vision Impairment Simulator Glasses**, you can gain a more comprehensive understanding of the challenges faced by individuals with multiple impairments or conditions.

By embracing this holistic approach, you will be better equipped to develop designs that address the diverse needs and experiences of your target users. Remember, empathy is at the core of meaningful design, and by continually expanding your understanding and perspectives, you can create truly inclusive and impactful solutions.

Have you thought about using the Aged Simulation Suit along with:

Wheelchair

Arthritis Simulation Gloves

Vision Impairment Simulation Glasses

These are just some suggestions; you can get creative and try to create any combination of empathy simulators, including your own DIY simulators.

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Reference

1. Sakamoto Model. (n.d.). *Aged Simulation Suit II*. https://www.sakamoto-model.com/product/simulation/m176/index.html

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