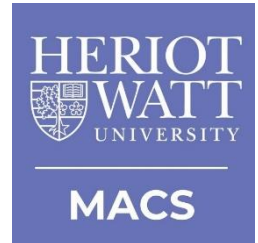


*Interactive and Trustworthy Technologies Group,
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PARTICIPANT INFORMATION SHEET

Study Title

Evaluation of a Robotic Stroke Rehabilitation Coaching System

Invitation

You are being invited to take part in an in-person evaluation of a humanoid robotic stroke rehabilitation coach. Before deciding, it is important that you understand why this research is being done and what it will involve. It is also important that you understand that this research should not be viewed as a rehabilitation service. We do not know if the methods used in this research will benefit you, although we have taken care to ensure your safety during the research process. Please take time to read the following information carefully and discuss it with others if you wish before deciding whether or not to take part. Please ask us if there is anything that is not clear or if you would like more information.

Purpose of study

Carrying out rehabilitation exercises regularly has the potential of significantly improving a stroke survivor's recovery. However, due to physical and cognitive deficiencies, stroke survivors may find it difficult to engage with and adhere to the rehabilitation required. A robot has the potential to fill this coaching gap and provide extra motivation to adhere to repetitive individual exercises between sessions with a physiotherapist. We are investigating the effects on motivation and exercise completion of a robotic coach guiding a person through these individual rehabilitation sessions.

Why have you been chosen?

You have been chosen to participate in this study because you have an upper limb impairment caused by stroke, are living independently, are not part of a vulnerable group and are therefore an ideal evaluator of the robotic system.

Do you have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time, without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not have any consequences.

What will happen to me if I take part?

You will be invited to Heriot-Watt University's Edinburgh campus on two separate occasions to interact with the robotic rehabilitation coach. The researcher, Mr Martin Ross, will greet you at the entrance to the Earl Mountbatten building and show you to the lab in which the study will take place. You will be given a chance to ask any questions about the study and asked to fill out a short demographic questionnaire. You will interact with the robot 3 times

- once on your first visit and twice on your second visit. During these interactions the robot will guide you through a 15-30 minute rehabilitation session and will count how many of each exercise you manage to complete. The exercises will all involve movement of your arm(s) and upper body and can be completed whilst seated. Following each of these interactions, you will be asked to complete a series of questionnaires. The researcher will remain in the room (keeping a 2 metre social distance at all times) during the interactions. No part of the process will be audio or video recorded. Between the two interactions on your second visit, you will be given a break of around 45 minutes. All collected data will be held in accordance to the General Data Protection Regulation (GDPR) 2018, and nothing which could identify you will be published. The university will be the data controller so if you wish to access or delete your data at any stage, please contact the researcher, Mr Martin Ross on the email address listed below or the Data Protection Officer on dataprotection@hw.ac.uk.

Anonymity and Confidentiality

All data obtained during the study will be stored anonymously. Your contact details will be kept strictly confidential and will only be accessed by the researcher, Mr Martin Ross or by the Principal Investigators Dr Frank Broz and Professor Lynne Baillie. Any information that is reported or published will be anonymised prior to dissemination, and thus will not contain information that would reveal your identity. A copy of the Heriot-Watt University Privacy Notice for Research Participants can be found here:

<https://www.hw.ac.uk/uk/services/docs/information-governance/PrivacyNoticeResearch-V4Finalversion.pdf>.

What will happen to the findings of the research study?

The findings will be reported and published at relevant conferences and journals concerned with Human Robot Interaction, Artificial Intelligence and Machine Learning. These findings will also be used to help improve the system for future trials.

Right to Withdraw

You have the right to withdraw from this study at any time, without consequences, if you wish to do so.

Complaint Procedure

If you have any complaints about any issues regarding the study or any of the proceedings of the study, you can address informal complaints to the researcher, Mr Martin Ross or the Principal Investigators Dr Frank Broz and Professor Lynne Baillie. Alternatively, a formal complaint can be made to Heriot-Watt University by contacting Claire Porter, School of Mathematical and Computer Science representative for the University Complaints Committee, by email at c.porter@hw.ac.uk or by mail: Room 1.11, Earl Mountbatten Building, School of Mathematical and Computer Science, Heriot-Watt University, Riccarton, Edinburgh, EH14 4AS.

Contact for Further Information

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Researcher: Mr Martin Ross - mkr30@hw.ac.uk

Principal Investigators: Dr Frank Broz – f.broz@tudelft.nl

Professor Lynne Baillie - l.baillie@hw.ac.uk

Thank you for your interest in this study