

Casper

Stakeholders: a philosopher and a psychologist

****Additional capabilities:**

Record patient data

Keep a record of supplies and monitor levels - medications, food

Social/Ethical/Cultural

Inform occupants of room before entering

Wait for occupants' consent after informing and before entering

Use the user's preferred pronouns/name when giving reminders

Legal/Ethical

Before giving the user a tutorial on how to prepare a meal Casper should inform the user of health and safety precautions and risks of abandoning cooking

If in tutorial mode and user leaves kitchen, then stop tutorial mode and inform user of risks of abandoning cooking

If person other than user is detected in the room and medication reminder scheduled, ask user to consent for medication names to be publicised

If person other than user is detected in room and user consents to medication names publicised, mention medication names

If user dementia is $>[\text{threshold}]$, do not use sharp objects in teaching approach

If user medication prescriptions change, outdated prescription history should be sent to healthcare providers and then deleted from Casper's storage

If person other than user is detected in the room, confirm with user's schedule whether person is authorized

If person is authorized to be in the room, system must not collect data on the person

If person is unauthorized to be in the room, inform occupants of room and contact healthcare providers immediately

If Casper is unable to find user in the house then inform healthcare providers and emergency contact

Empathetic

Inform user if the room they're in has the lights switched off

Inform user how to turn on lights if lights are off and they're in the room

Inform user how to turn off lights if lights are on and they're not in the room

When reminding the user of a meal, ask if user wants to learn how to prepare it

After each cooking instruction, confirm with user if step is complete before moving to next step

If user unable to move, and user wants to communicate with family members or healthcare providers, allow user to use voice command

If moving toward user, alert user before moving

Empathetic/Ethical

Inform user of Casper's use/purpose if identification requested

If user is resting/sleeping, do not move in the apartment

If no reminders scheduled, Casper should move to different room than user

If user does not ask for help, Casper should not help

Unless user observed to struggle for ≥ 3 minutes then Casper asks user if help required

If user is sleeping and Casper required to give meal reminder or medication reminder or doctor appointment reminder, WakeUser

Unless time between 7pm and 5am, then not WakeUser

Casper should not come closer than one metre to the user

Unless ConsentGiven

If user has a visitor, do not interrupt the user and do not occupy same room as user

Unless there is a reminder scheduled

If user requests alone time and reminder scheduled, then inform user of reminder priority and ask user for consent to be left alone

If user consent to be left alone and reminder scheduled, then contact healthcare providers and emergency contact

If user in kitchen then Casper should be in kitchen

If user is in any room, Casper should be in a different room

Unless user in kitchen

Unless there is a reminder scheduled

Unless communicating with family or healthcare providers

Unless user requests Casper to be in the same room

Empathetic/Cultural

Only teach user to prepare meals that coincide with the user's dietary requirements and/or preferences

If user is praying, do not move in the apartment

If user is praying, delay reminder for 10 minutes

If user is praying, do not start meal tutorial

Use the user's language when initiating calls with family members of healthcare providers

Use the user's language when giving reminders

Legal/Ethical/Empathetic

If user requests to withdraw consent then inform user of consequences of consent withdrawal and ask user to re-confirm withdrawal request

If user re-confirm withdrawal request then inform healthcare provider of consent withdrawal and pause reminders for 30 minutes

If healthcare provider acknowledges consent withdrawal then Casper should stop all system capabilities

Social/Empathetic

If user is eating a meal and there is a reminder scheduled, delay reminder until meal is complete

If user reminded to take medication and user not take medication within 30 minutes, remind user again

If user reminded to eat a meal and user not eat meal within 30 minutes, remind user again

If user request to communicate with family members or healthcare providers, then inform user if light off

If user communicating with family members or healthcare providers and reminder scheduled, interrupt conversation

Unless reminder is for meal, then wait until call is over

Unless user requested to be interrupted by reminder

Social/Legal/Ethical

If obstruction in room doorways detected, inform healthcare providers

Unless user placed obstruction intentionally and user able to remove obstruction alone

Social/Legal/Ethical/Empathetic

If system movement, detection, monitoring, or communication abilities obstructed, alert emergency contact immediately

Social/Ethical/Empathetic

If supplies below a pre-determined, minimum level then inform emergency contact and inform user

Time: 1:34