

KNX OPERATION CONCEPT

for visually handicapped persons with KNX IoT

Softer living with coloured buttons



Task

In the equipment of a house adapted to the needs of a disabled, a home technology controlled by KNX is not to be omitted. If correctly applied, electrical functions provide relief and more quality of life. GePro is facing the task to facilitate the life of visually handicapped persons. The solutions have to prove themselves especially in case of restricted visual perceptive faculty. Part of the task is the coupling of emergency phones and nurse call systems into the KNX operation concept.

Solution

The main focus is put on the operation of domestic functions. Unclear touch surfaces and tiny displays are a problem for visually handicapped persons. KNX buttons with different colours have proved themselves e.g. already in nursery schools. The KNX 4-fold buttons (GePro) have brightly illuminated touch surfaces in red, green blue, yellow, cyan-blue, violet and white colour with a clearly perceptible action point and thus they are a solution for buildings adapted to needs of the disabled. In contrast to the cover plates which are also available in different colours individual colour concepts can be developed. The new KNX Web Service IoT offers a solution for the integration of subsystems into the KNX system and for their operation concept.

Realisation

4-fold KNX buttons are installed where visually handicapped persons have to switch on and off lights, shutters, heating etc. The colours are consistently allocated to dedicated functions. A nurse call can also be made by KNX buttons. The acknowledgement of the nurses' station via a KNX panel (GePro) is signaled in the same way by a defined colour display. The connection to alarm functions preforms KNX IoT by an appropriate and an gateway and ETS App.

Functions

Functions like e.g. switching on or off and dimming can be performed with the push button. Emergency and nurse calls are forwarded to other systems. The possibility of a central monitoring is demonstrated by means of a mobile tablet.

Advantages

- It is easier for visually handicapped persons to operate domestic systems.
- More security by emergency call integration.
- Possibility to monitor remotely the functions in disabled households.
- Possibility to add KNX functions for a higher life quality.

