

Project Overview

Funding project as a partner – BASIL

Digital assistance system for motor-impaired people using brain waves – BASIL (Brainwave driven digital Assistance System for motor-Impaired people)

Overall goal

Development of an assistance system for motor-impaired people to control smart home solutions with brainwaves .

Time span

01.10.2016 – 30.09.2019

Volumes

Total project: 761 t €

Subproject SBG: 419 t €

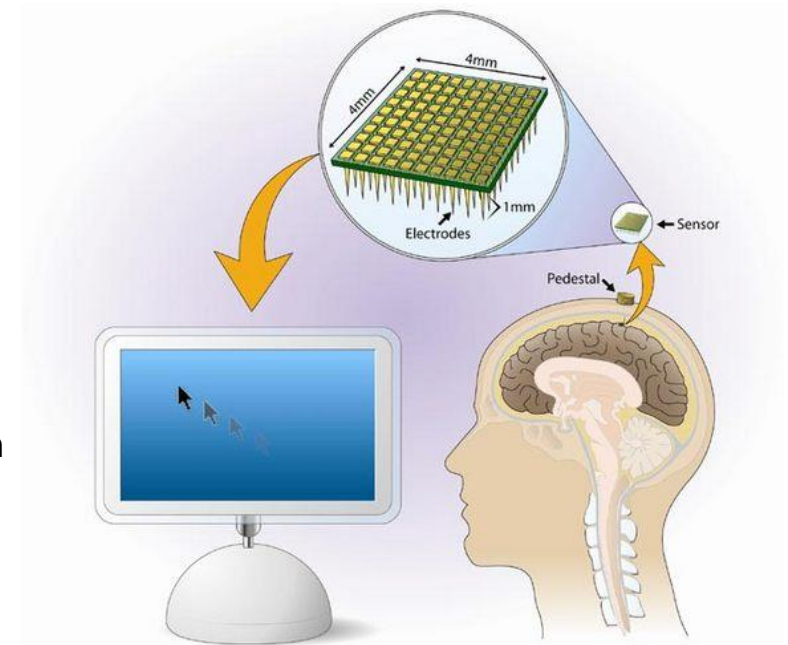
Subproject SPS: 124 t €

Status

Funding project in the programme for cross-border cooperation between the Free State of Bavaria and the Czech Republic (target ETZ 2014 - 2020), SBG and SPS as partners

Project Status

Started



Development goals:

- Wireless, comfortable sensor technology for recording brain activity
- Algorithms for the recognition of operations from brain activity
- Self-learning algorithms to adapt the system to the user
- Integration of the system into a Smart-Home environment
- Connection of the system to the cloud for self-learning adaptation of the system to the user

Tasks of the SBG:

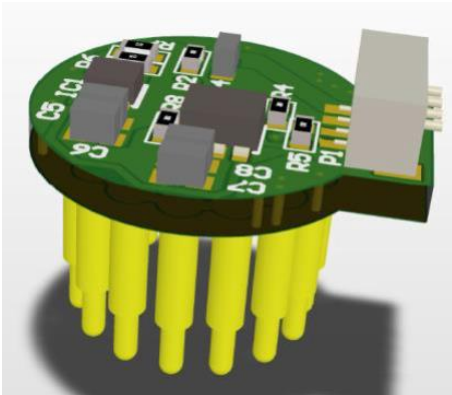
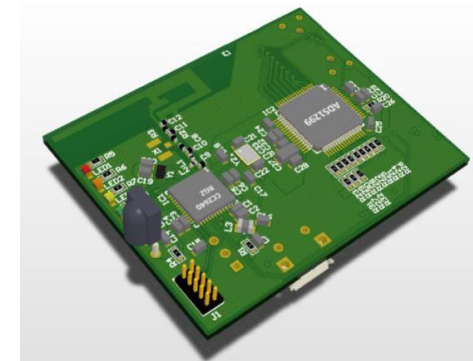
- Development of wireless sensor technology for recording brain activity (hardware, firmware)
- Development of a base station with cloud connection for evaluation of measured activities (hardware and software)
- Integration of the base station into a smart-home

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Achieved milestones

- Available EEG Amplifier Devices have been evaluated
- Single-board computers for the base station have been characterized
- First version of the EEG hardware is available and will be evaluated.



- First tests with new dry electrodes were carried out
- Dry electrodes with active reinforcement have been developed

