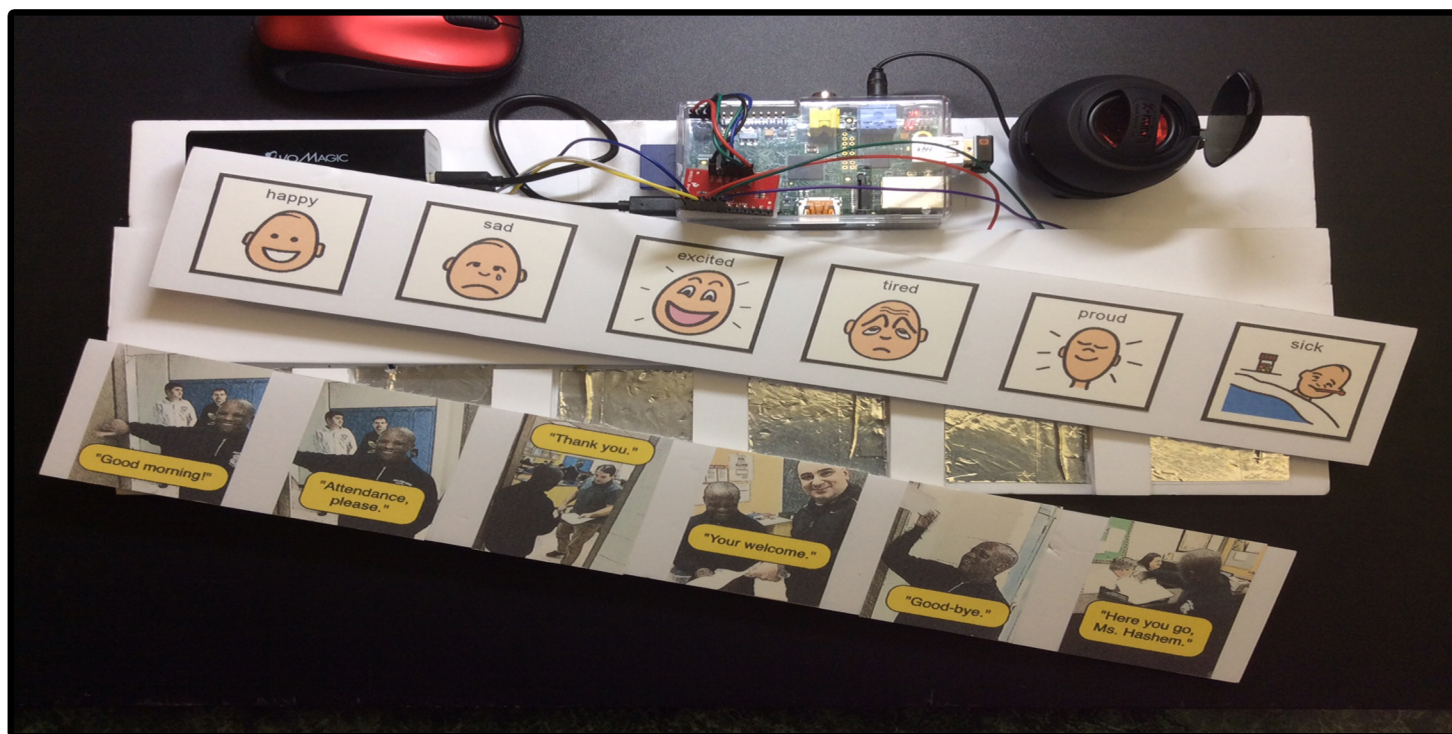


# TalkBox

An Open Source Speech  
Generation Device (SGD)

TalkBox is an inexpensive, portable, and easily customizable means of adding speech to picture communication boards with essential communication symbols, choice boards, or communication scripts for social interactions. Its primary target group is children and young adults in the elementary and secondary school systems who have developmental disabilities. With its low cost and easy adaptability it can be quickly implemented and modified, not only for different scripts or functions, but also to the highly variable physical and cognitive needs of different students. In an individual case, it may be all that is required of a communication device, but in others it can also play the role of a bridging device, providing conceptual training to help in the adoption of more sophisticated and expensive communication technologies. The technology is currently being developed and refined, and its potential as a teaching device is being evaluated.



## Technology Involved

The device consists of three components: a small Raspberry Pi computer with Linux installed, a MPR121 capacitive touch sensor, and 12 buttons which can be fashioned out of any conductive object.

## Open Source

The code and assembly instructions for TalkBox are freely available on GitHub, so you can make your own! Contributions to the project in the form of new features or sound sets are also welcomed and encouraged.

## Build Your Own

1. Download the image file from GitHub and install it on an SD card.
2. Make buttons out of anything conductive.
3. Plug buttons into sensor board, sensor into Raspberry Pi and connect power and speaker.

And that's it, you have your own TalkBox!

