

Connor Sendel
iPad Cases for Autism

The number of children with autism has been steadily increasing. So too has the use of external communication and learning devices such as iPads by these children to help them grow and develop. In using such devices, accessibility issues and issues with functionality are inherent; this was the problem this project attempted to solve through building a universal case system. To build this case, adults who interact with children with autism who use these devices were surveyed to determine the issues and usefulness of certain things pertaining to iPad use, as well as general background information. This survey was analyzed and the biggest issues were the screen becoming scratched or dirty, the device breaking, the speakers being insufficiently loud, the device being difficult to see due to the angle it was at, and the device not being attached to the student. Materials to cover the screen were tested and the best material was determined to be polycarbonate plastic, solutions to prevent damage to the device were tested and the best solution was found to be a foam strip around the edge of the device, and lastly amplifying devices were tested and the best device was found to be a curved chamber. The solutions for varying the angle of the device, holding the device, and attaching the device to the student were discussed in a focus group of professionals and the best solutions were determined based on feedback from the experts. This was all combined into the final case design.