



A Helping Hand

Design Brief

Background

When Louis was adjusting to his blindness, his family members were a big help. Louis' dad made him a cane so he could find his way around. His father also made letters by pounding rounded nails into a board so Louis could feel letters by touch. His sisters made the alphabet out of pieces of straw. Louis played dominoes with his mother because he could feel the dots with his fingertips. Louis' family was very supportive in helping him through a difficult adjustment.

Today, people with visual impairments have all kinds of aids and technologies to help them. Thanks to Louis' invention of the Braille system, they can easily communicate through reading and writing. But, there are also products and toys available that are especially suited for people who cannot see or who have low vision. For example, there are talking clocks devices to read colors of clothing. There are books with raised images making it easy for children to color or paint pictures.

There are also Braille playing cards. But, think about how difficult it would be to read the Braille cards by touch while trying to hold on to all of your cards so others cannot see them? This is really tough for anyone to do, but especially young children. They need a helping hand. Be an inventor and try to figure out a way to make this task easier!

Challenge

Work with your partner to design and build a device that a friend or family member could use to safely hold playing cards so that one or both hands can be free to read the Braille code. Your "helping hand" invention might end up being preferred by all players, not just those with vision impairment!

Criteria and Constraints

1. Your design process must be well documented in the design notebook.
2. Your "helping hand" device must:
 - Hold at least 5 playing cards (but, more would be better),
 - Allow the user to easily place cards in the device and remove them,
 - Make it easy to hold the cards without other players seeing them,
 - Not damage or deface the cards, and
 - Use only the materials that are provided.