

First aid(ucation) kit

In-class distance learning system

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June 2022



Introduction

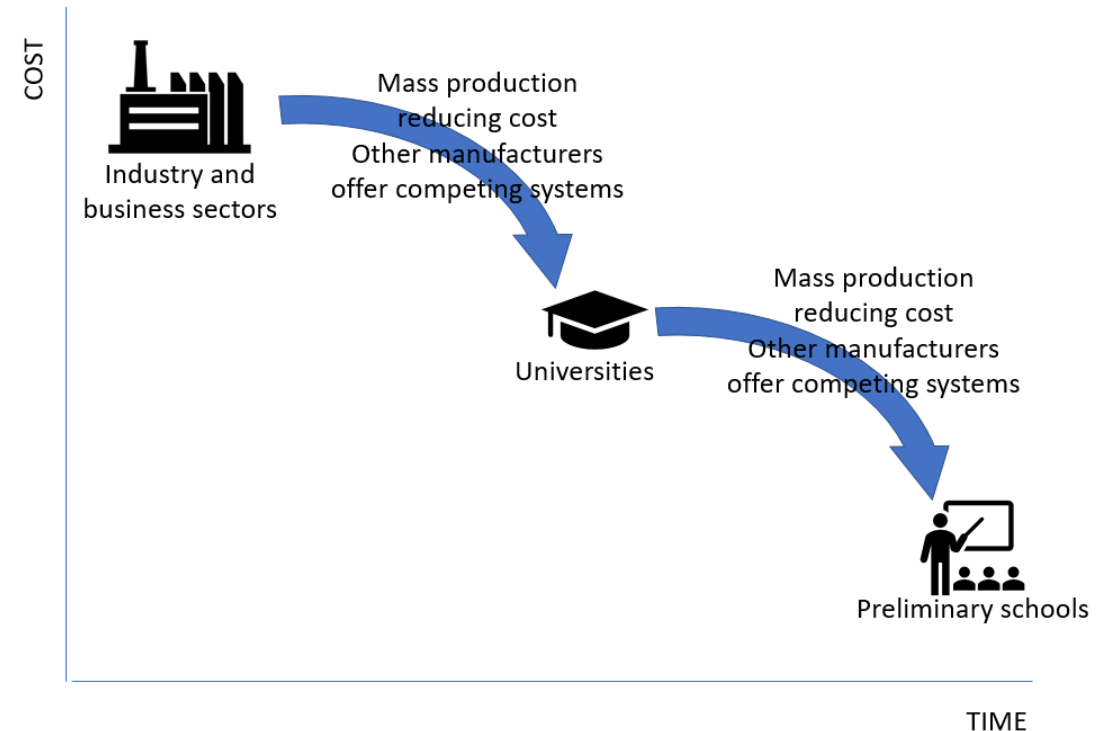
- In 2020 COVID changed the world.
- Isolation policy
- Working and studying from home.
- Long period of time
- Schools went online with virtual meeting softwares like Zoom, Gmeet, Teams etc.
- No one ever trained school staff and children to work with those tools.
- Children suffered from loneliness, lack of education and psychological problems

Objective

- Design and describe the tools, products, and business plan to allow the education system to adopt the tools that will allow children to feel part of their class even if they are bound to stay at home
- Children can see their friends and teacher in as natural look as possible way: good resolution, allow full body visualization, enabling looking at them from different angles, not only front view.
- Usable in all three scenarios: all at class, all at home and part in the classroom and part at home
- All users will share the same level of activity
- All teaching and learning material will be online and in the system
- **Feel at class even while away**

Cost reduction

- Education systems short of money
- 1st step: reducing the cost of the system
- The business sector has money and motivation
- Save costs of flights, hotels, and waste of working days
- Reduce CO₂ emissions
- training workers in a close to reality scenarios as business meetings, maintenance, assembly of products
- Mass production
- Competitors will join to make their own products
- Universities and colleges
- Beta site for the system in an education system
- Researches: cognitive and vision effects on the students and user interface.
- schools



Design requirements

For preliminary school

- A child should feel part of the class and the other classmates to feel as that kid is with them.
- Easy to handle by a 6 year old kid
- if wearable, fit the body of a kid 6-12 years old. Special focus on kids with glasses.
- The design should be robust
- Users will be able to see their classmates and teacher fool body
- The system should allow the user to block outside interruptions
- The system needs to work on batteries and allow continues work of at least 7 hours.
- The system needs to operate by speaking
- The system should visualize the users body language, including hand gestures and head movement.
- The teacher could be able to move between groups of kids
- The teacher could see the progress of every kid easily.

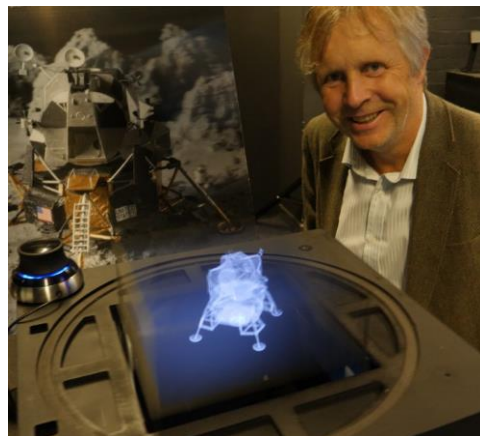
For business sector

- The system should allow workers placed at home or anywhere else to participate in any meeting, studying or other work activity with a complete feeling as if they were at the office
- The system should be easy to transport with and allow anyone to use it in a simple and intuitive way
- The product should allow workers to work with their colleagues at office without making barriers that would harm their work
- The product should maintain working for a full working day without a need to charge
- The product should fit an adult body regardless of their gender or body size

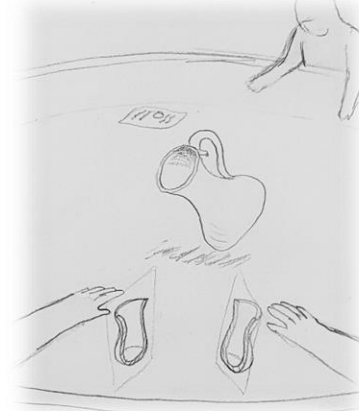
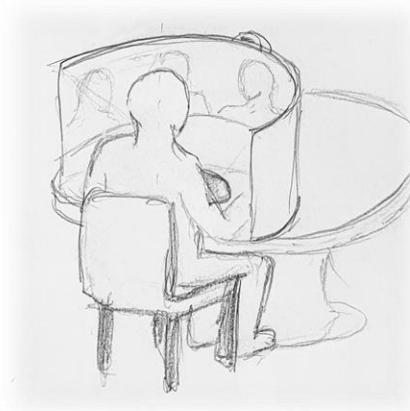
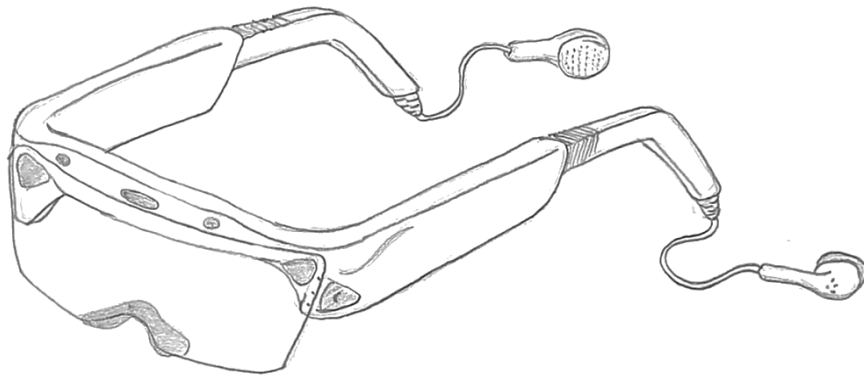
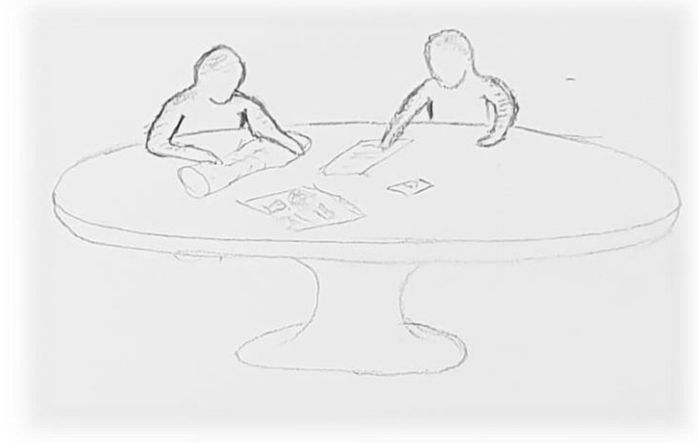
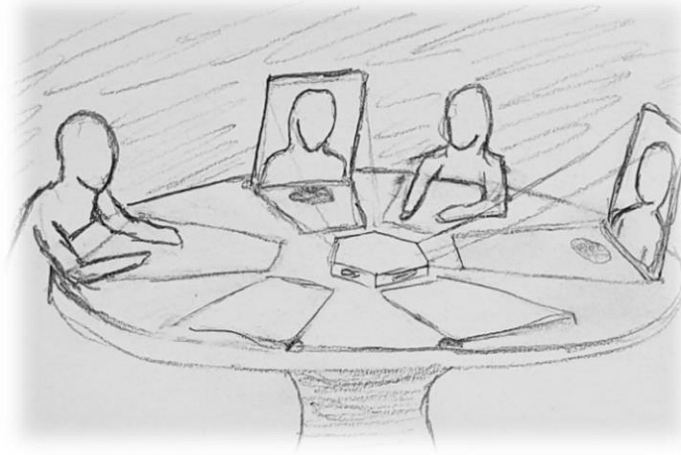
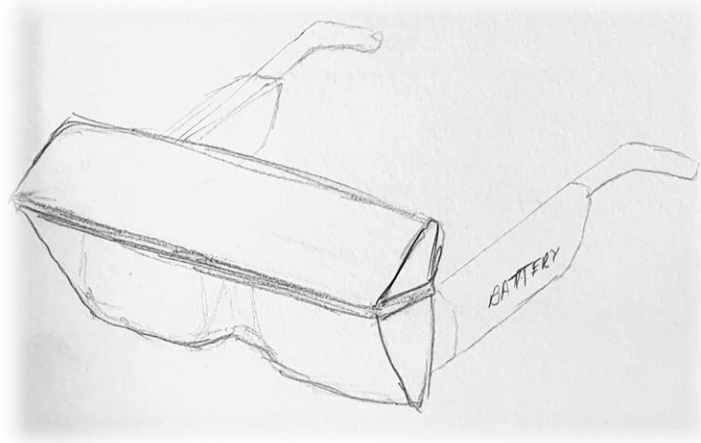
Sci-fi references



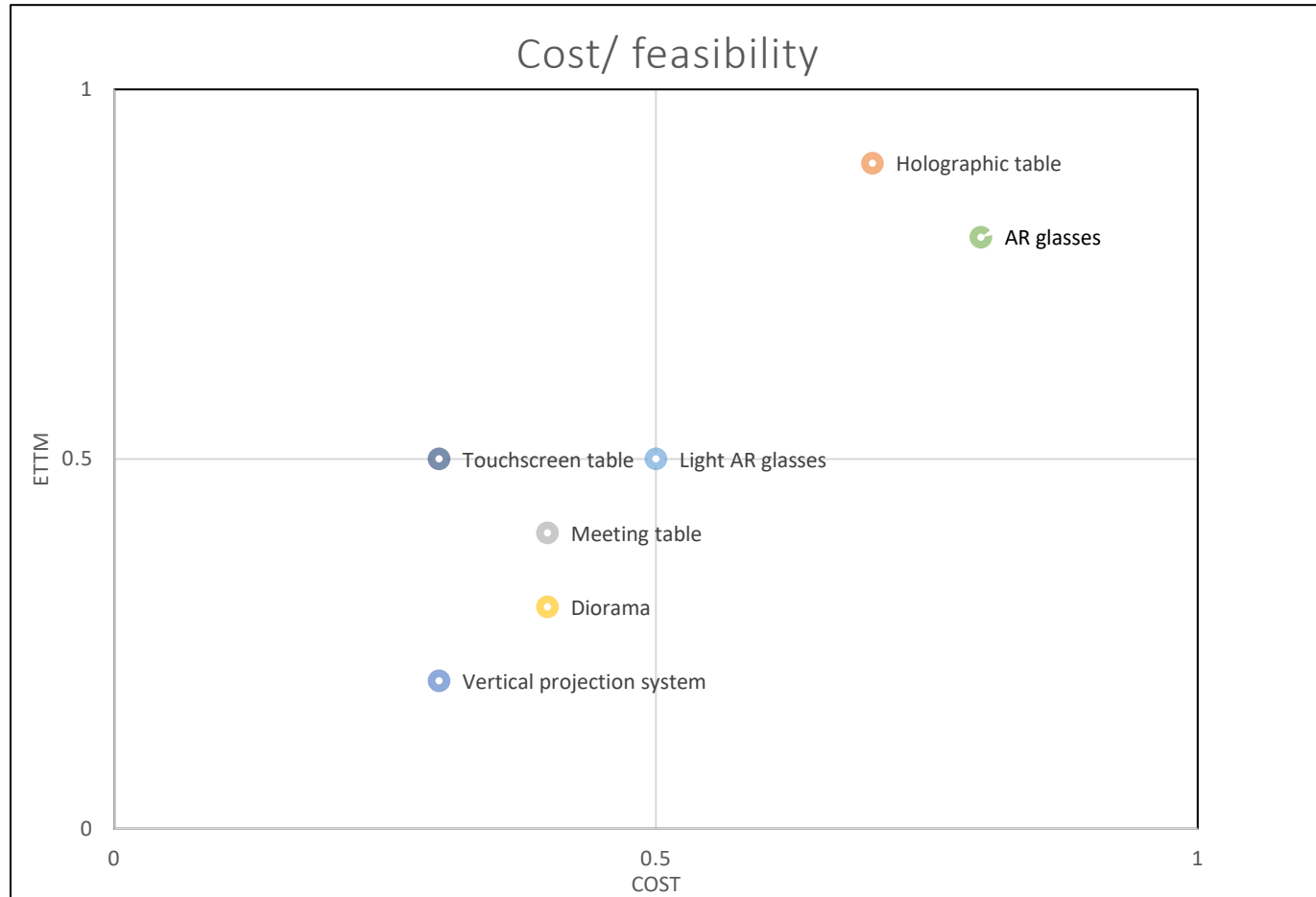
Current technology reference



Design ideas



Design selection



Design	Single user	Multiple users
Vertical projection system		X
Touchscreen table		X
Holographic table		X
Meeting table		X
Diorama	X	
Light AR glasses	X	X
AR glasses	X	X

Solutions

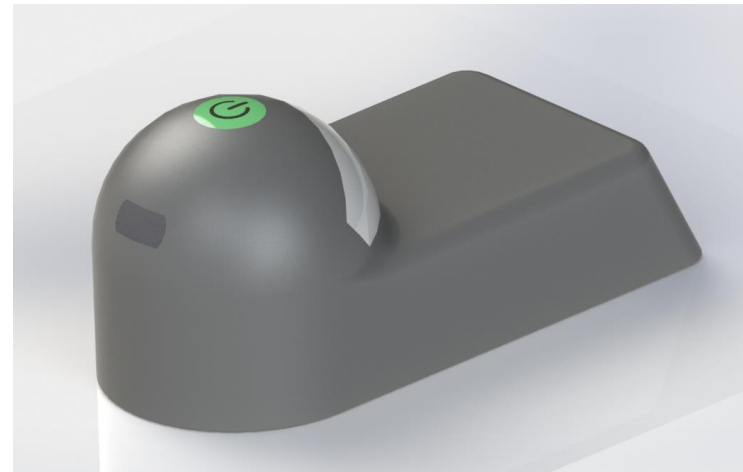
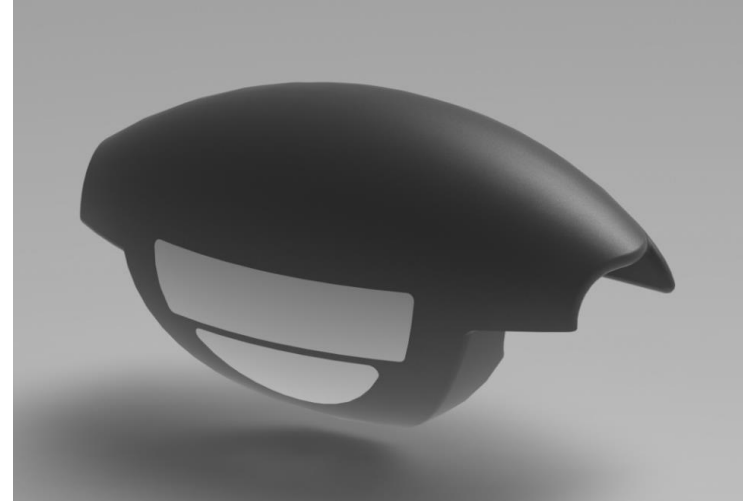
Long time to market



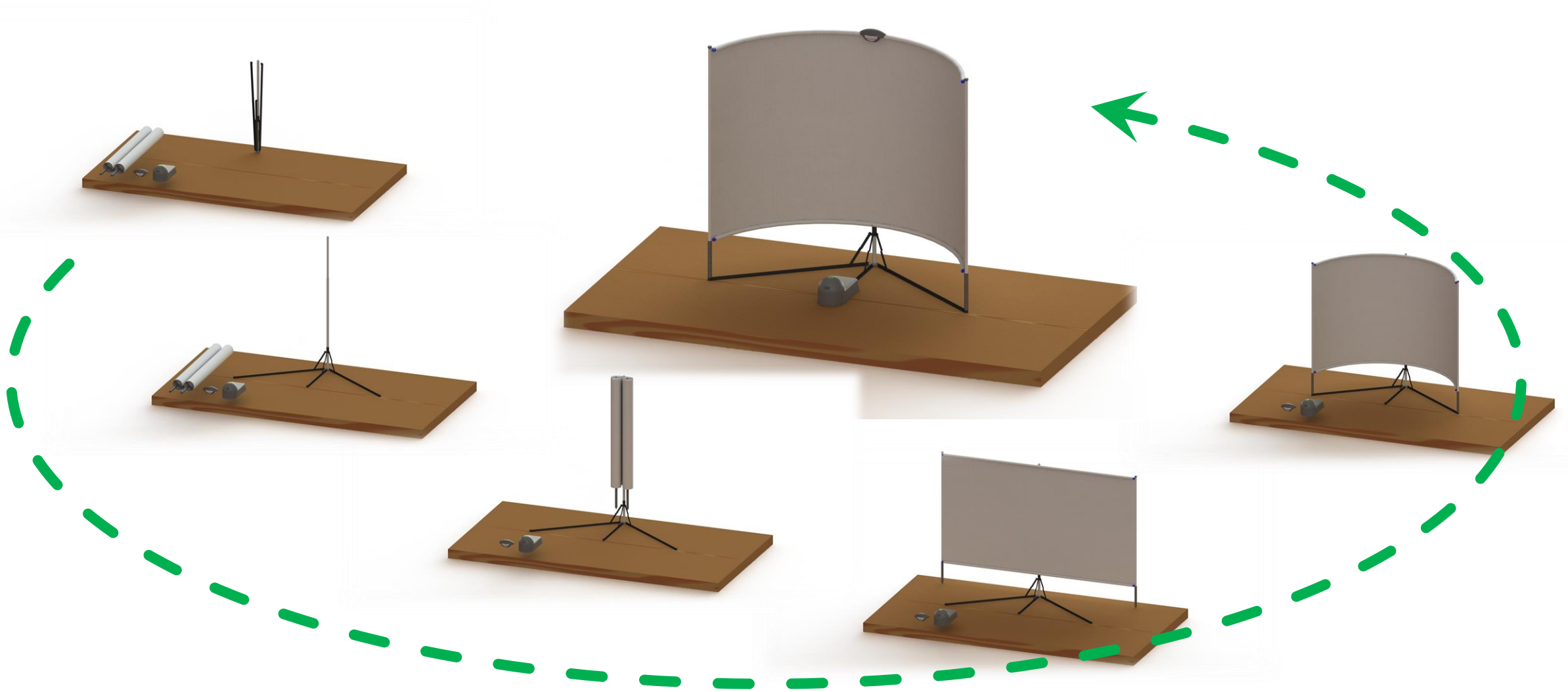
Short time to market



Short time solutions study from home



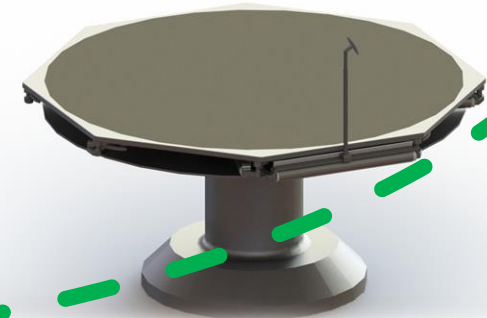
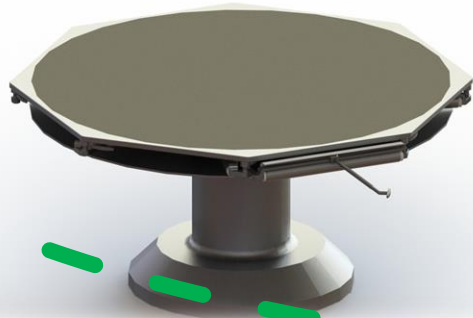
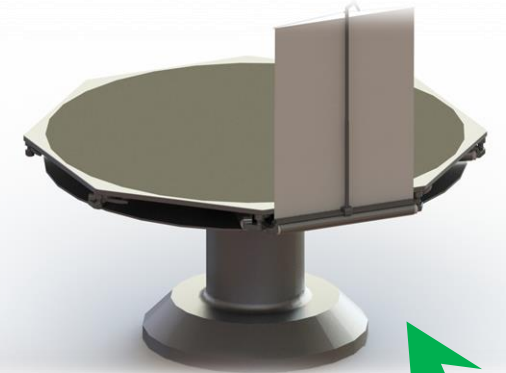
Short time solutions study from home



Short time solutions meeting table



Short time solutions meeting table



Short time solutions both sides of the story

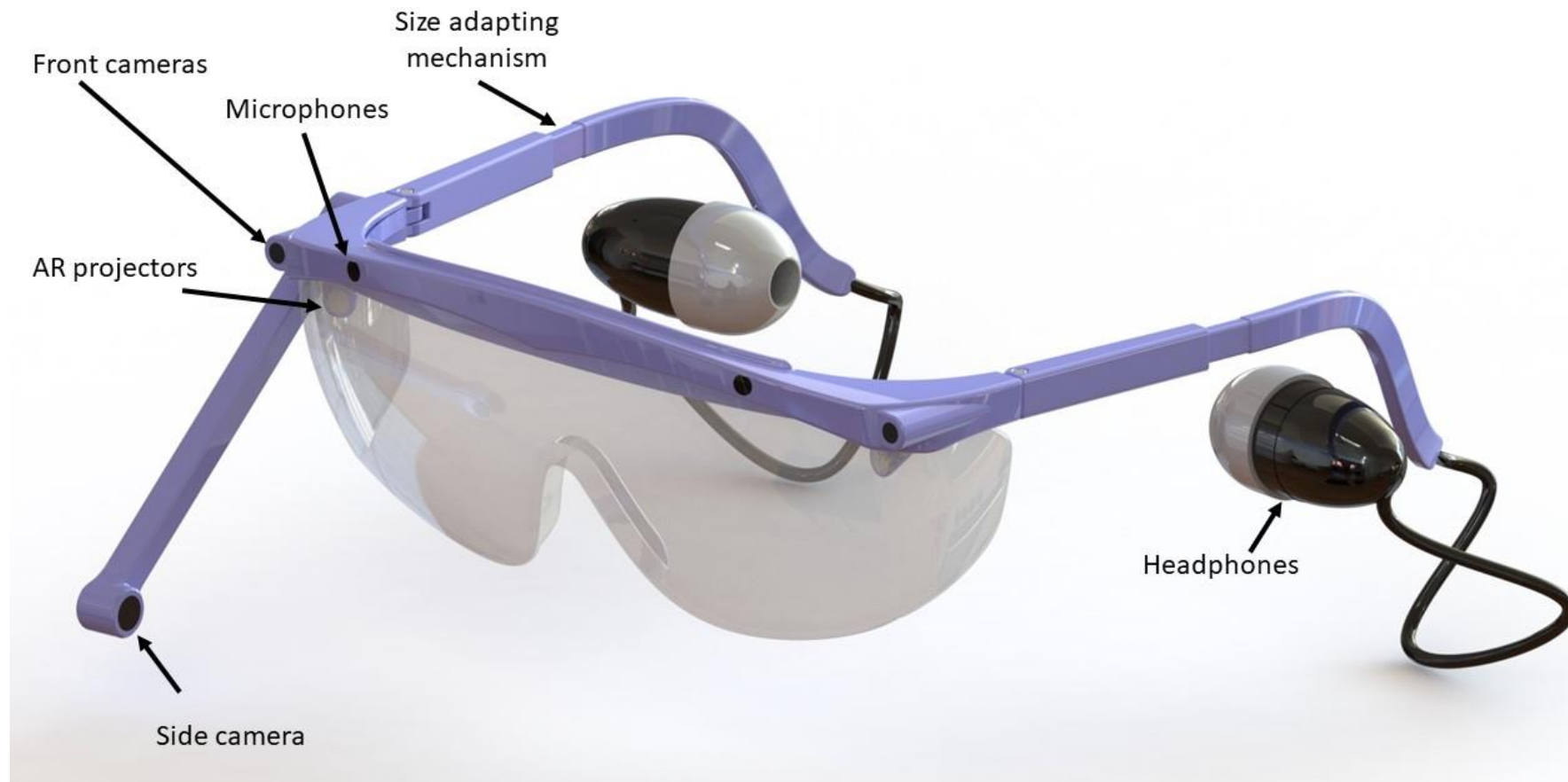
At home



In class

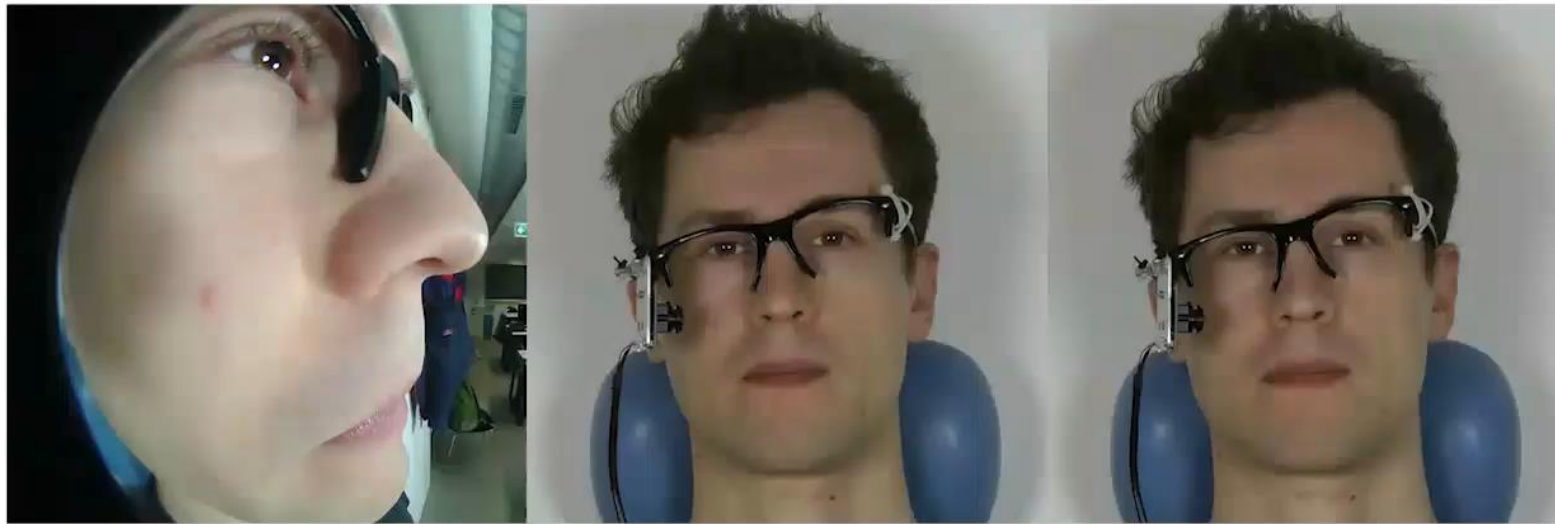


Long time solution



Long time solution

Strong expressions



input

ground truth

our prediction

Long time solutions Futuristic solution



Side effects

- Internet can be used today in distant places with no infrastructure



- Connect children in rural areas
- Connect children with mobility problems

Teach every child according to their abilities and needs, not according to their geographic location

Thank you

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