Function

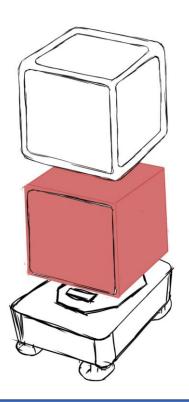


Summary of concept

The pix bot is a smart assistant like Alexa or Google assistant, but it's specifically developed to interact with kids and help kids in their overall development. The pix bot is getting its name from the word pixel since the Bot was designed to look like a small illuminated body

Look

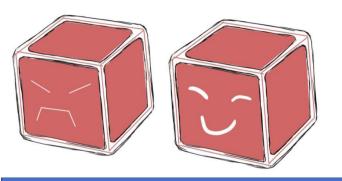
The pix bot is designed to look like a illuminated cube with a face that changes expressions depending on the situation. Pix bot is made this way so it could look simple, gender neutral and interesting.



Materials

Most of its body consists of electronics like memory drive, battery, sensors, flexibility display and processors. The internet frame is made from aluminium and uses a non-Newtonian material like G30 goo to protect them on impact. The exterior of pix bot is made from a semi-transparent polymer to disperse the light





Educational value

Pix bot focuses on Auditory and visual learning. It uses audio mainly to interact with kids and by telling Facts in direct or indirect conversations it tries to get them interested in topics designed by team of Child Psychologist's and Educationalist. The level and category of topics are not determined by age but rather on interests and responses. I is also able to answer children's question like any other virtual assistant if it is connected to the internet.

Different attachments can further be added to improve the learning experience for the children.

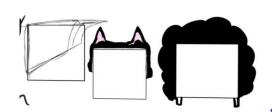


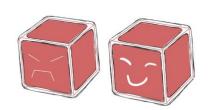


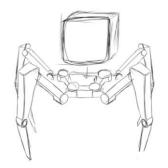
Modularity

The look of the toy is made as simple as possible so kids could improve it by customizing it and use it with pix compatible products.













these are also special developed toys for Pix to interact with. Which include things like keyboard or chessboard so it could help you in learning them and challenge you. It also has other modifications like projector, display cube to improve the visual learning experience.

Learning modification -



customization- Pix could be attached to modified toys like a drone, tank, spider legs and other similar pix cubes which gives it some moving parts. These attachments could also be controlled remotely or programmed using a snap Programming tool.



Operations



Getting started -

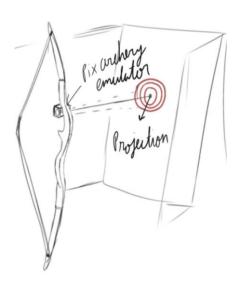
Things you need to do with new Pix

- 1.Scan the Qr code inside the package.
- 2. This will take you to Pix ownership from.
- 3. Fill out the details about parents and kid.
- 4.Type in the Pix code presented inside your Pix Packaging.

5. You have successfully created your virtual Pix.
6. You can download the app on different devices that your child might use to secure their internet experience and limit their screen time.
7. Start your Pix by tapping 3 times on its top.
8. Use Voice command to connect it to wifi

9.The virtual Pix you created will now load to the Pix baapp.

10. The Pix is ready to be used and character customization can further be done on parent control app.



Security

Biggest concern for smart toys is cyber security. To address that some of the main features that makes Pix interesting are tried to be integrated inside it like learning database, machine learning, facial recognition etc. Secure during internetbased applications needs to established.



Charging

Since Pix is operated using built-in battery it needs charging. It can be charged by placing it on its charging dock. The dock can be connected to the Pix in case you want to charge it using only USB. The shape of charging dock could wary depending on the model and edition.

Learning

Things kid's could learn. Current affairs Daily news

History

Nutritional facts about food

Behavior

Helps in revision.

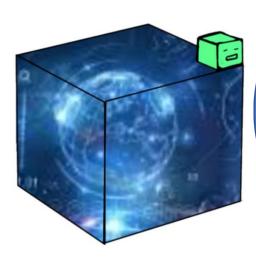
Basic programming

Skills like chess, Pino, archery etc.

Interaction

It can interact with the user using mainly audio and simple expressions. But the small front display could be used to deliver information to some extent like message, spellings, equations etc.

The user can interact with Pix using mainly voice but other forms include gesture and app.



Ergonomics and Aesthetics

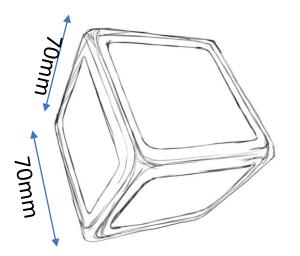


Ergonomic
Without trying to put in all the wonderful things in one Pix. Only those that are necessary to achieve Auditory learning are integrated in the Pix

Safety

While using pix both safety of product and user are kept in mind. Some of the safety includes

- Making all sharp edges smooth.
- •Sensing fall or impact and make a sound to avoid it.
- •Shock absorption integrated inside the body.
- •Flexible screen less susceptible to cracking.
- •Size big enough to not fit in kid's mouth.







Aesthetics
designed to look like a
single 3d Pixel. Which
makes it gender neutral and
simple that could be further
customize by changing
colours, adding accessories
and other layers to
customize it. This will let the
child express some
creativity.

Size
Parameters taken into
consideration while
deciding the size where
it must be easy to carry,
easy to store, easy to
integrate, avoid
swallowing and visibility.

Packaging and LCOG

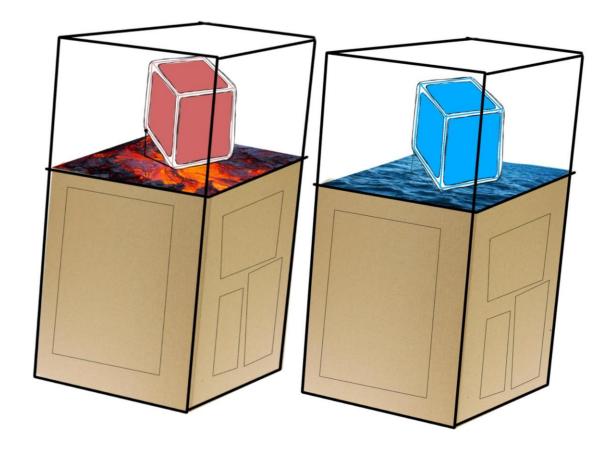


Packaging

Things need to be taken into consideration while deciding on packaging Sustainable shows all parts fun background info graphic Minimalistic

The package would contain one Pix bot, one charging dock, one aesthetician modification, instructions manual, Qr code for registration, charging cable, pamphlet of possible modifications.

All this is packed in a cuboidal box made of cardboard whit the top section being transparent showcasing the Pix bot . In different backgrounds depending on the character and edition of the Pix.





Low cost of goods

While all toys in smart toys section are relatively expensive there are few ways to reduce the cost for Pix.

Simple design reduces the manufacturing and machining cost.

Use of recycled materials like aluminum and plastic.

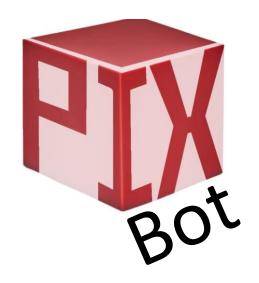
Although electronic cost is hard to reduce the product could be sold with lower margins of profit and profit could be made for selling virtual products like educational models and physical models.

Examples for such product is Xbox.

Storage

To be stored on charging dock when not in use. Less space needed for the charging dock. The dock could be secured on any flat surface with help of such cups and Pix could be attached using magnetic connectors to charge.





Sketching

Conceptualization and product development

UNIVERSITY OF LIVERPOOL

Conceptualization

