



Case Study

Design a communication
system/device to build
closeness/trust between people

‘People to People, from close friends to strangers’

Part Two



Design Process

- . Problem Statement
 - . Understanding the problem - worldview
 - . User Study - inquiry
 - . Conceptual Model
 - . Early Concepts
 - . Final Concept
 - . Scenario
 - . Product Development
 - . Interface Design
 - . User Feedback

Children



Early Concepts

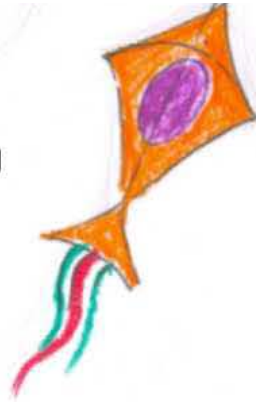


Early Concepts

Children

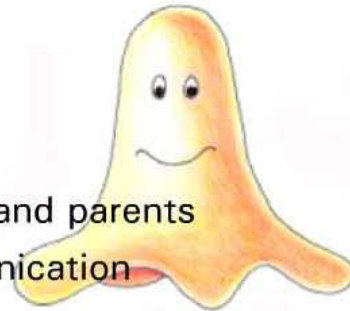
Kito

- Physical meeting
- Skill
- Strategy
- Effort
- Fun



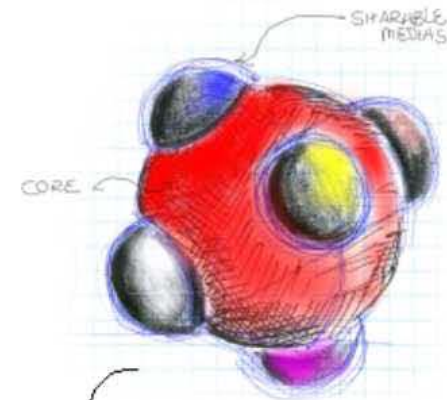
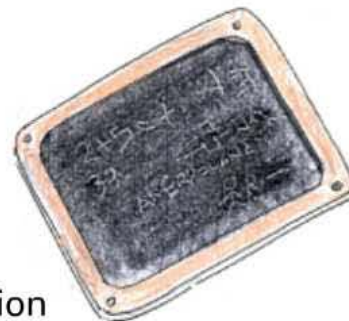
Jelly boy

- Companion
- Sharing feelings
- Link between child and parents
- No physical communication
- User group limited



Living Memory

- Learning
- Trust
- Share
- Scribbling
- No physical communication





Final Concept



Marbles - Features

- . Personalization
- . Exchange of marbles
- . Different sizes, colors, designs
- . Parent and secondary marbles
- . Strategy for different games
- . The more u play, the more u learn
- . Entertainment for players





History of Marbles

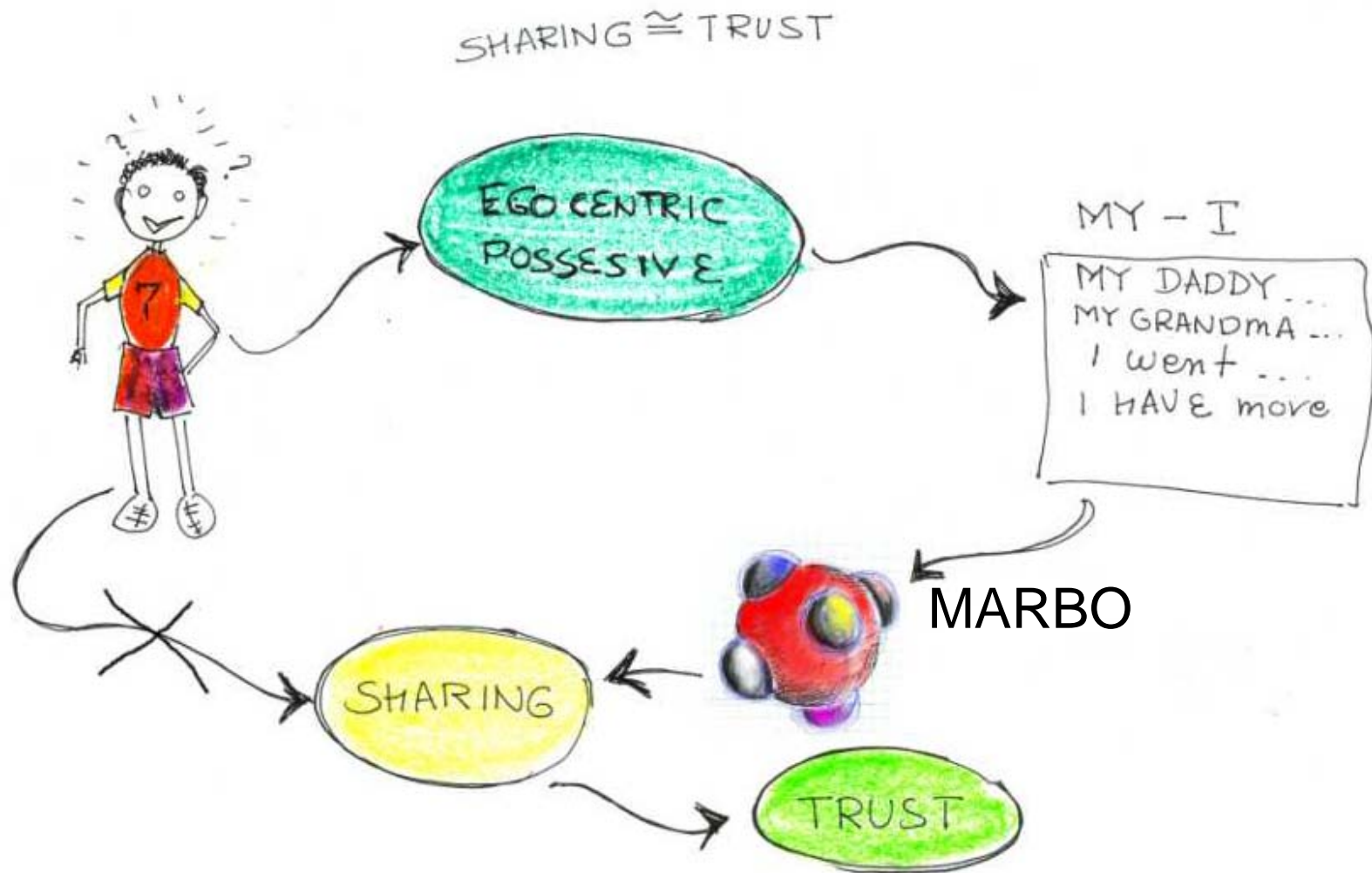
- . 3000 years old
- . Clay marbles found in ancient Egyptian tombs
- . Found in Mexico and USA dating back to 100BC
- . 19th Century marbles were being mass produced
- . Originally marbles were made of many kinds of materials - clay, bone, polished nuts and stones, and indeed marble
- . Now most marbles are made of glass





& we found the solution

- conceptual model





marbo



marbo

share your marbles



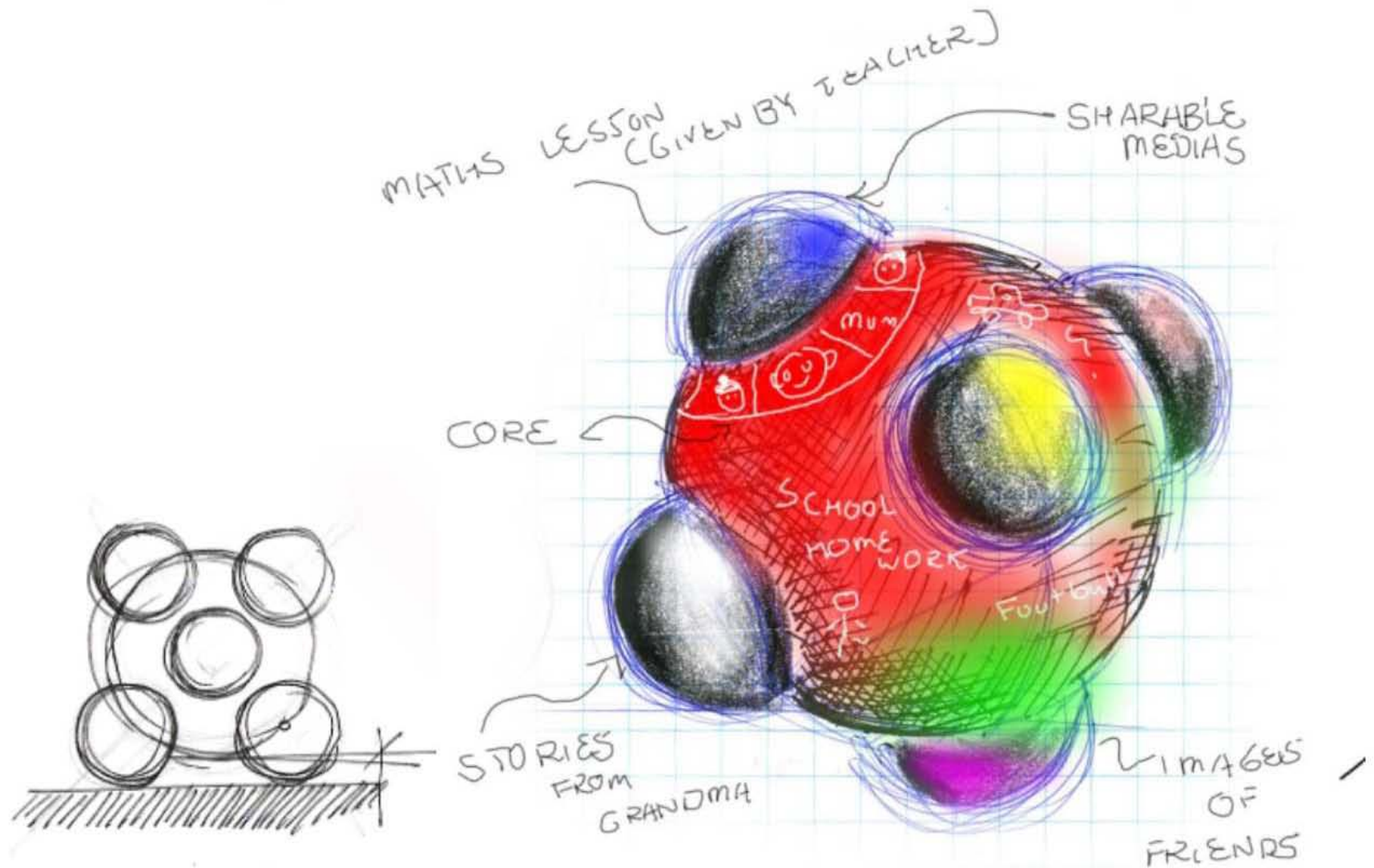
Marbo - Product Features

- . Customization- look, color, feel
- . Sharing - stories, pictures, learning, ...
- . A device to invite friends
- . Language building
- . Detachable marbles that can be given to others
- . Sharing scribbles, doodles and photographs
- . Morphing of shape and skins
- . Collaborative learning





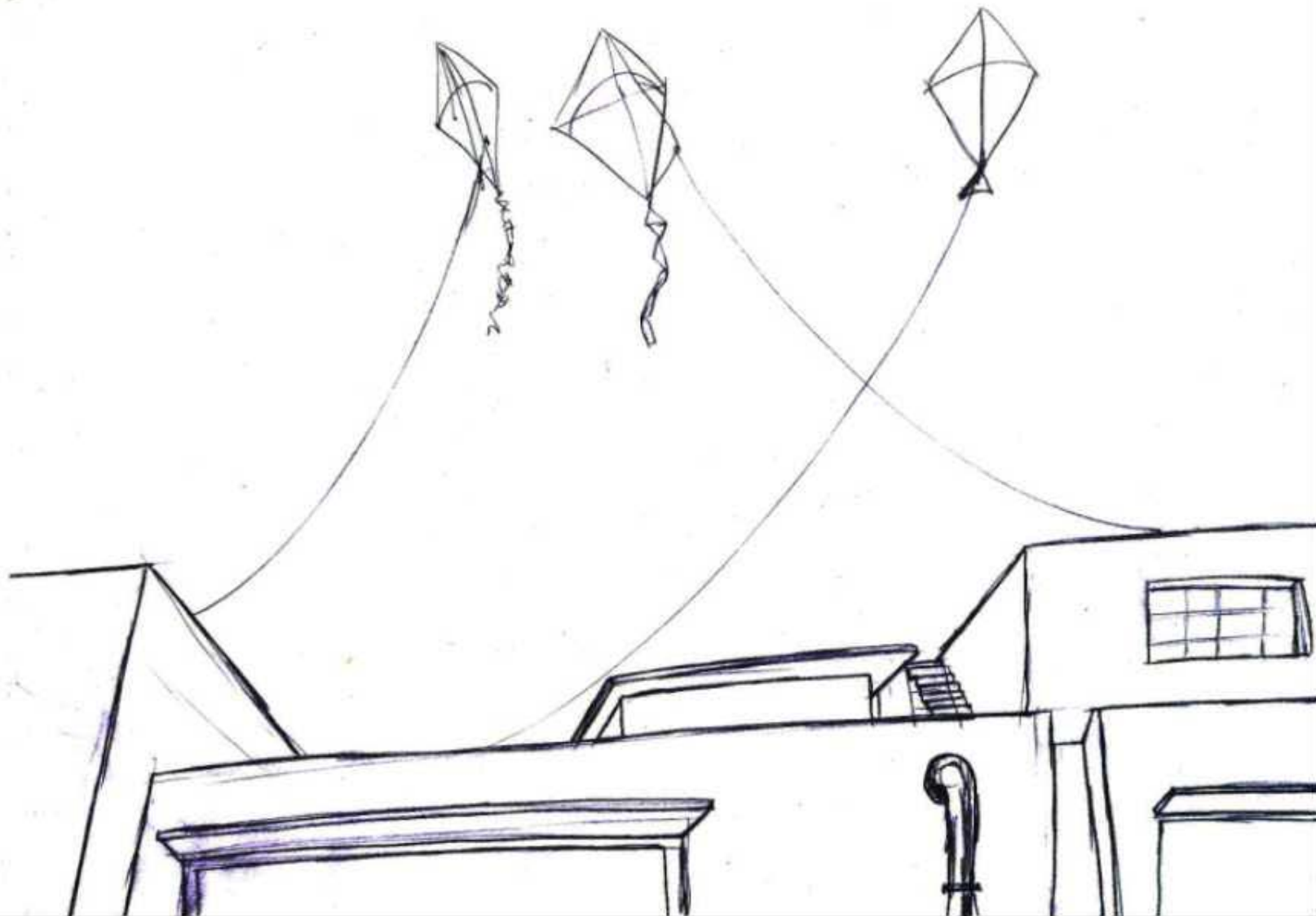
Marbo - Product Features

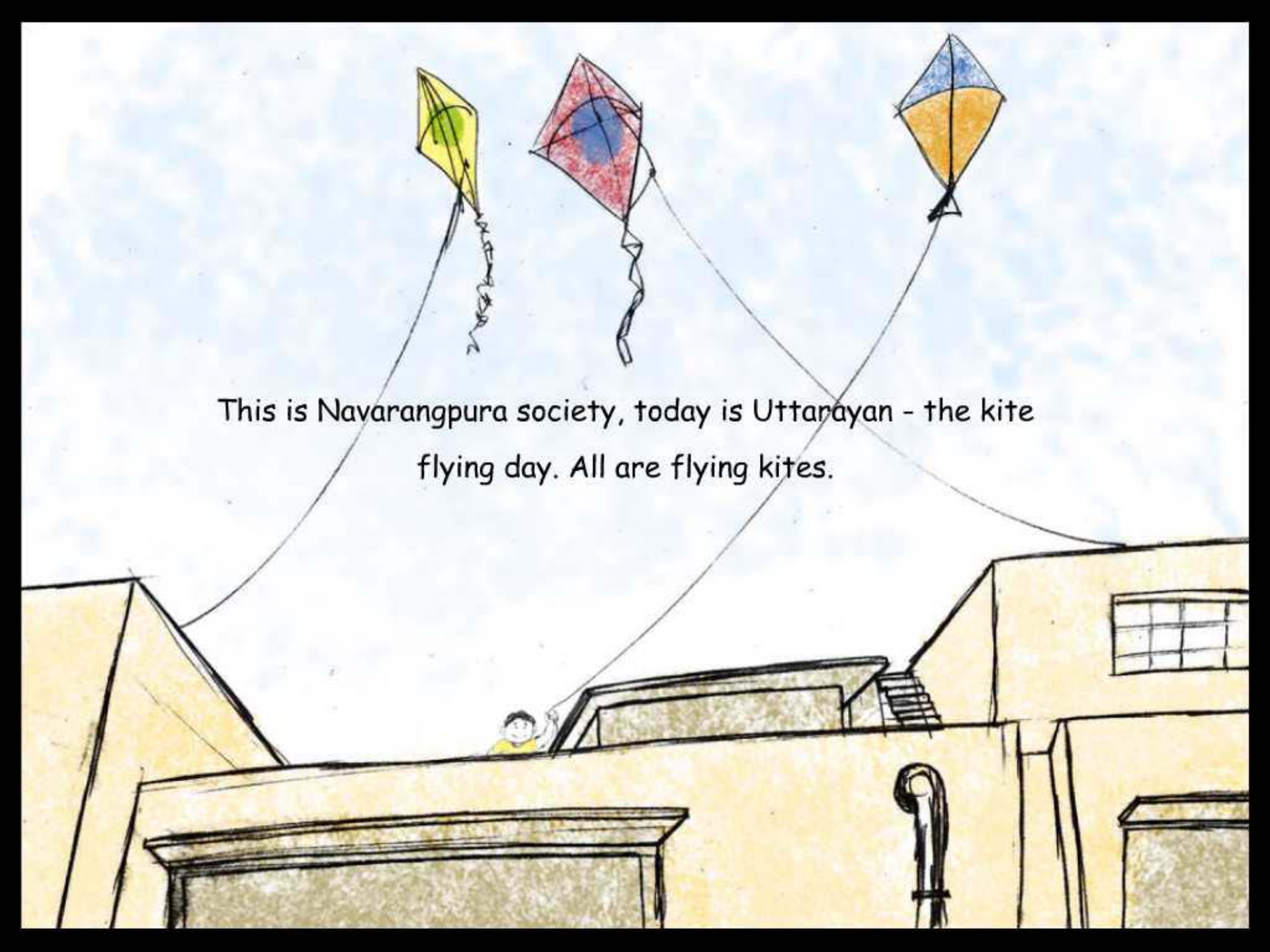




Scenario

Scenario





This is Navarangpura society, today is Uttarayan - the kite flying day. All are flying kites.

Ali, Pintoo, Munnu, Ved and Kavita are friends in the society, nowadays a fat guy called Motu is also there in the society

Ali



Pintoo



Munnu



Ved



Kavita



Jugal - the MOTU

Ved is also flying kite....

"Look, my orange kite is flying so high"



Someone cuts Ved's kite...

"Oh no!! somebody cut my kite"



"No problem, i have another one"



"Even this one is flying so high"



Someone cuts Ved's kite again... this time he gets very upset

"Oh no!! someone cut my kite again"



Ved looks out at the opposite terrace, it was the fat guy motu cutting Veds kite



Hehehe!! hahaha!! hehehe!!

"You motu!! i will see you..."



Ved tries to contact his friend Pintoo with his Marbo and asks for help in cutting Motu's kite



This is Ved's friend, Pintoo, he is also flying kite in his terrace...



Pintoo has a similar Marbo as Ved, when Ved contacts Pintoo, his marbo starts ringing



"Oh Ved is trying to
contact me..."

Ved scribbles a message for Pintooc on his Marbo...



Pintoo gets Ved's scribbled message on his Marbo...



"Oh Ved needs help in
cutting Motu's kite ...
We cant do this alone, let
me ask Munnu for help"

This is Ved and Pintoo's friend Munnu...he also has his own Marbo



"Oh Ved and Pintoo need
help in cutting Motu's
kite... No problem, lets
together scribble a plan on
on our Marbo"

Together they make a strategy to cut Motu's kite





"Ok I will go first...
i can see Motu's kite"

According to the strategy they decided on their Marbo, Ved, Pintoo and Munnu attack Motu's kite

"Ok I will go first"



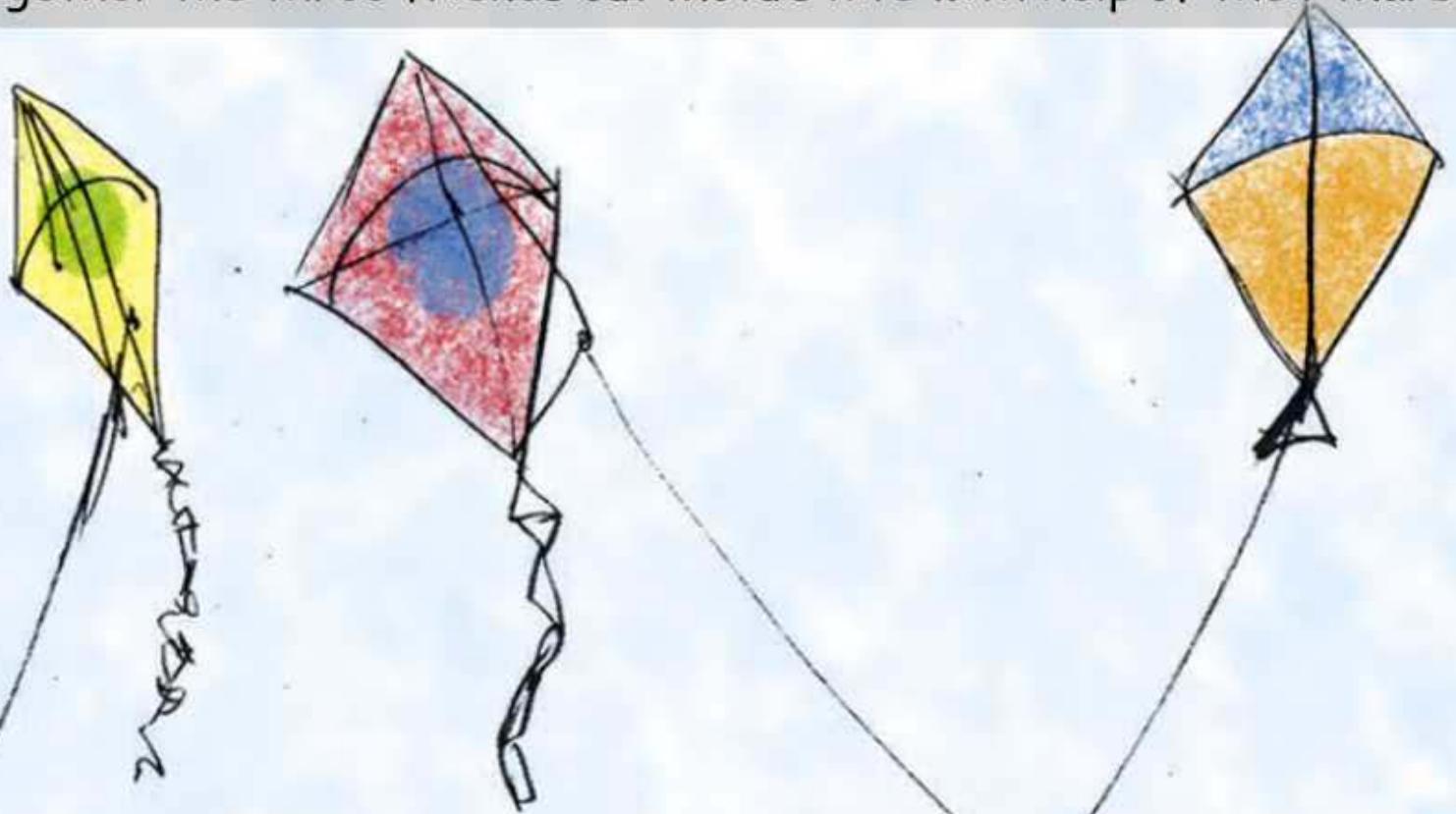
"Ok I will go left"



"Me from the front"



Thats how together the three friends cut Motu's kite with help of their Marbo



"This is how we cut MOTU's kite"

"All three together
cut my kite, but how
did they make a plan?
they are all in
different terrace"



Munnu takes MOTU's picture on his Marbo



All friends have a look at Motu's photo in Pintoo's Marbo..

"Lets look at Motu's photo in my Marbo"

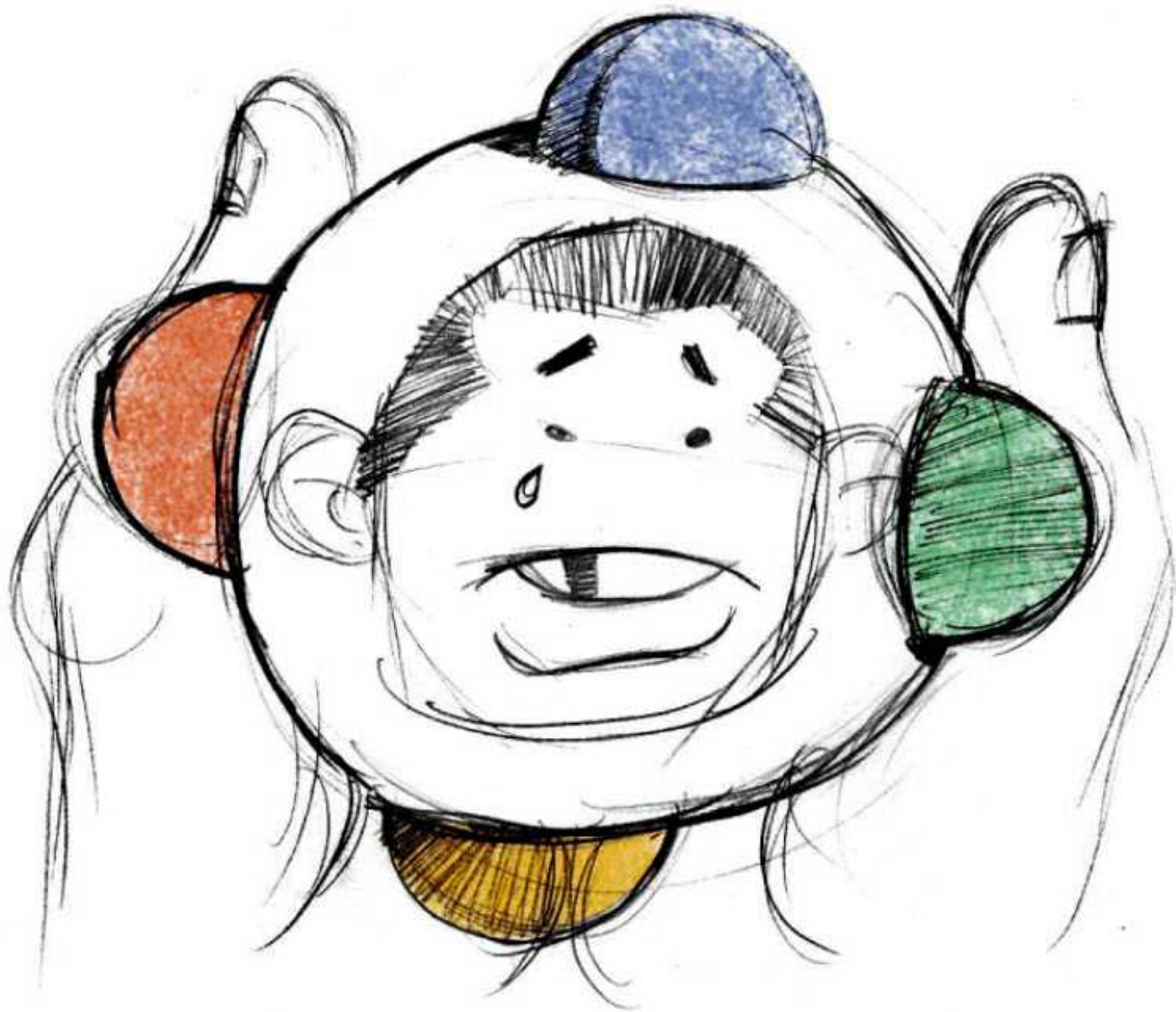


Munnu sharing his marble..



"Look guys i have
the picture of Motu
in my Marbo"

Munnu shares his marble



Suddenly Popat uncle comes there..

"Listen children, dont make noise
today evening we have a cultural
program in our society. why don't you
kids perform a drama for that?"



Popat uncle suggested them to make 'Ramayan' skit... 'Ramayan' is a holy Indian epic of God Rama

"Ye!! ye!! we ll do 'Ramayan'"





"But do we know the
story of Ramayan?"

Kavita had the story of 'Ramayan' in her Marbo. Her grandma told her that a day before.

"I have the story of Ramayan in my Marbo"

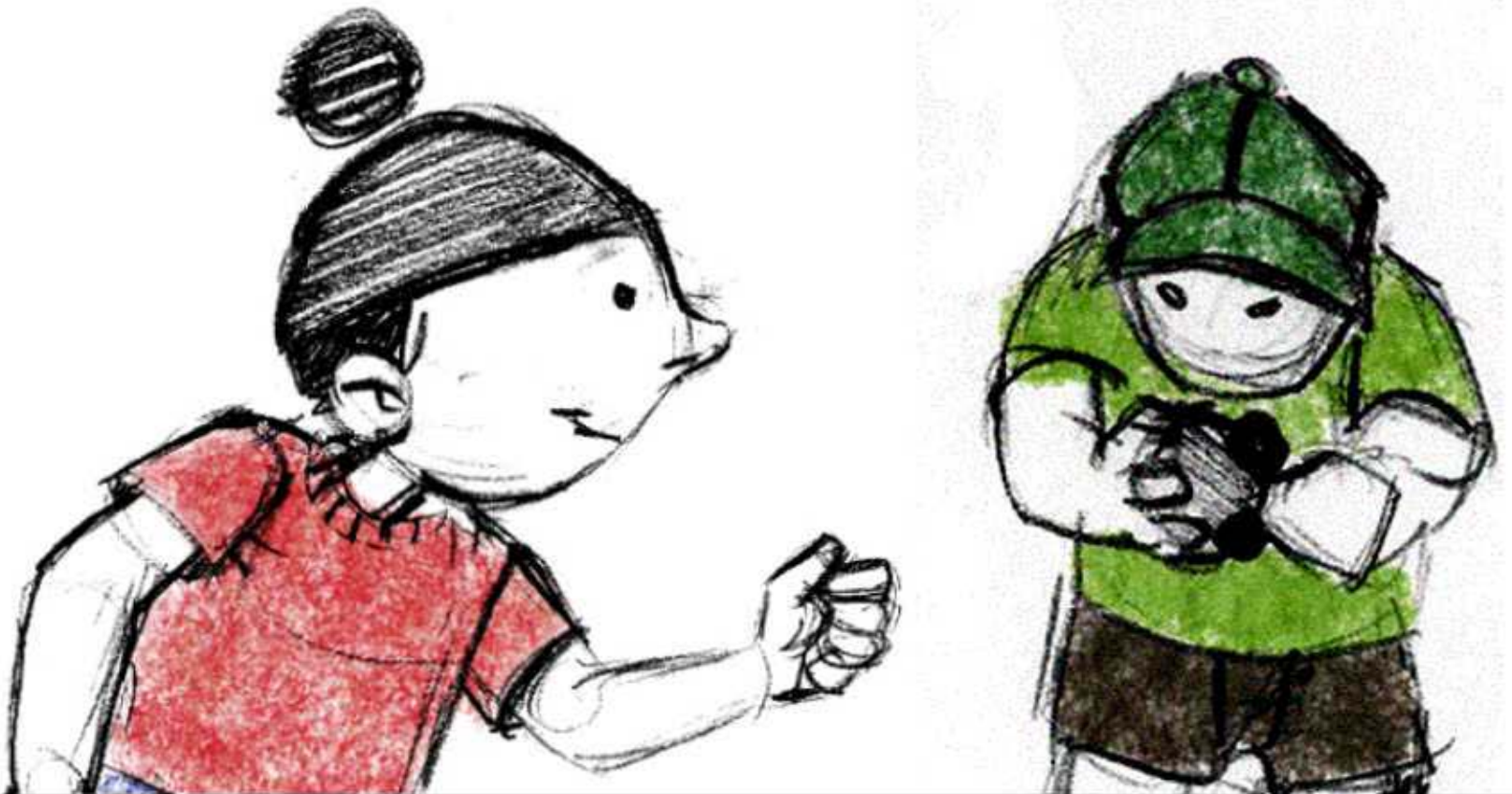


Kavita gives her 'Ramayan' marble to Pintoo and they all hear the 'Ramayan' story in grandma's voice



Hanuman is an important character in the story of 'Ramayan'. His face is like that of a monkey

"But who will become Hanuman?"



Pintu modifies Motus face to Hanuman in his Marbo with the pen tool...



And shares it with Pintoo..

"Look, Motu looks
just like Hanuman"



Suddenly Motu was also there ..



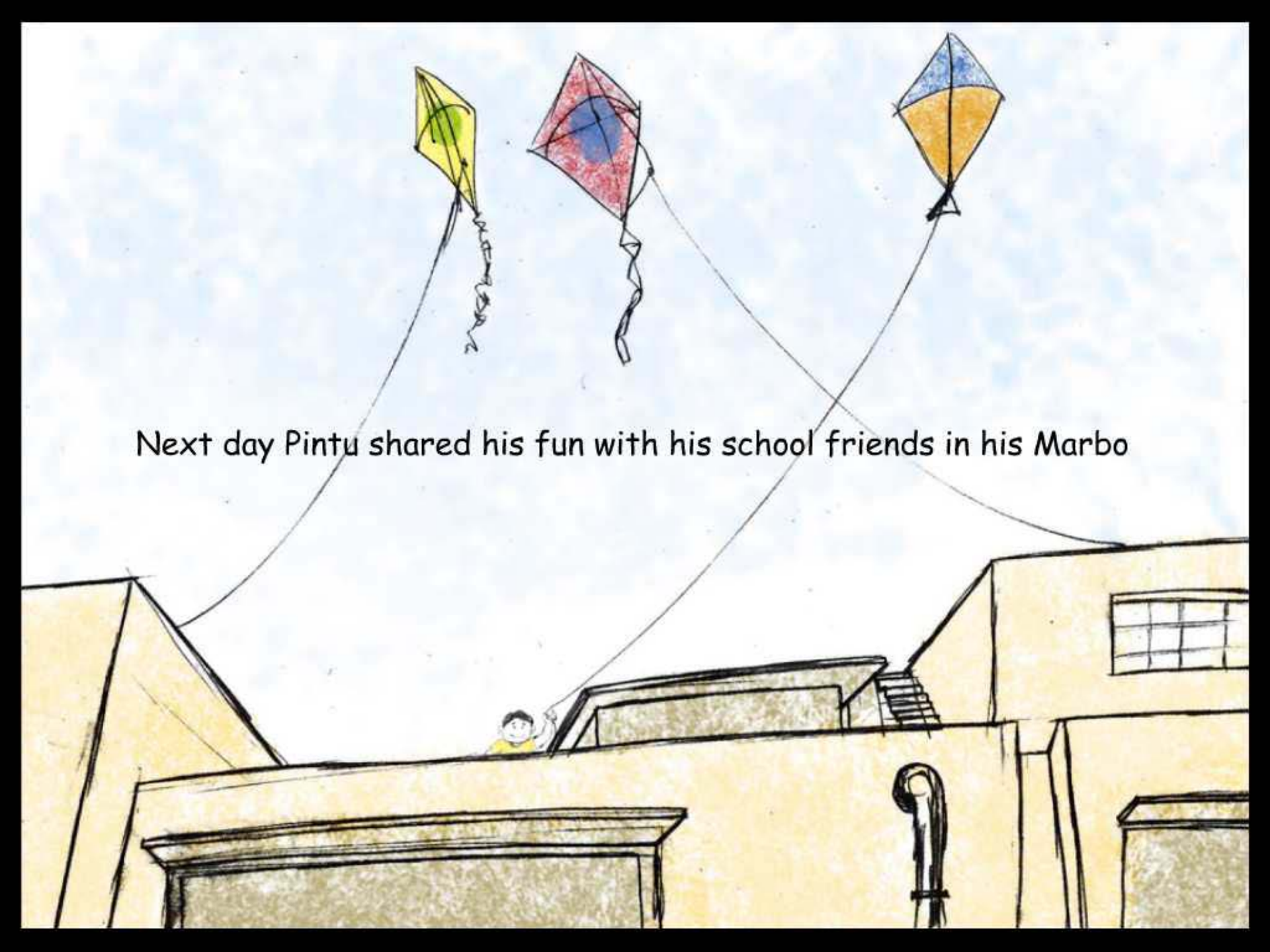
"I will become Hanuman"

"Ye, we ll do Ramayan"



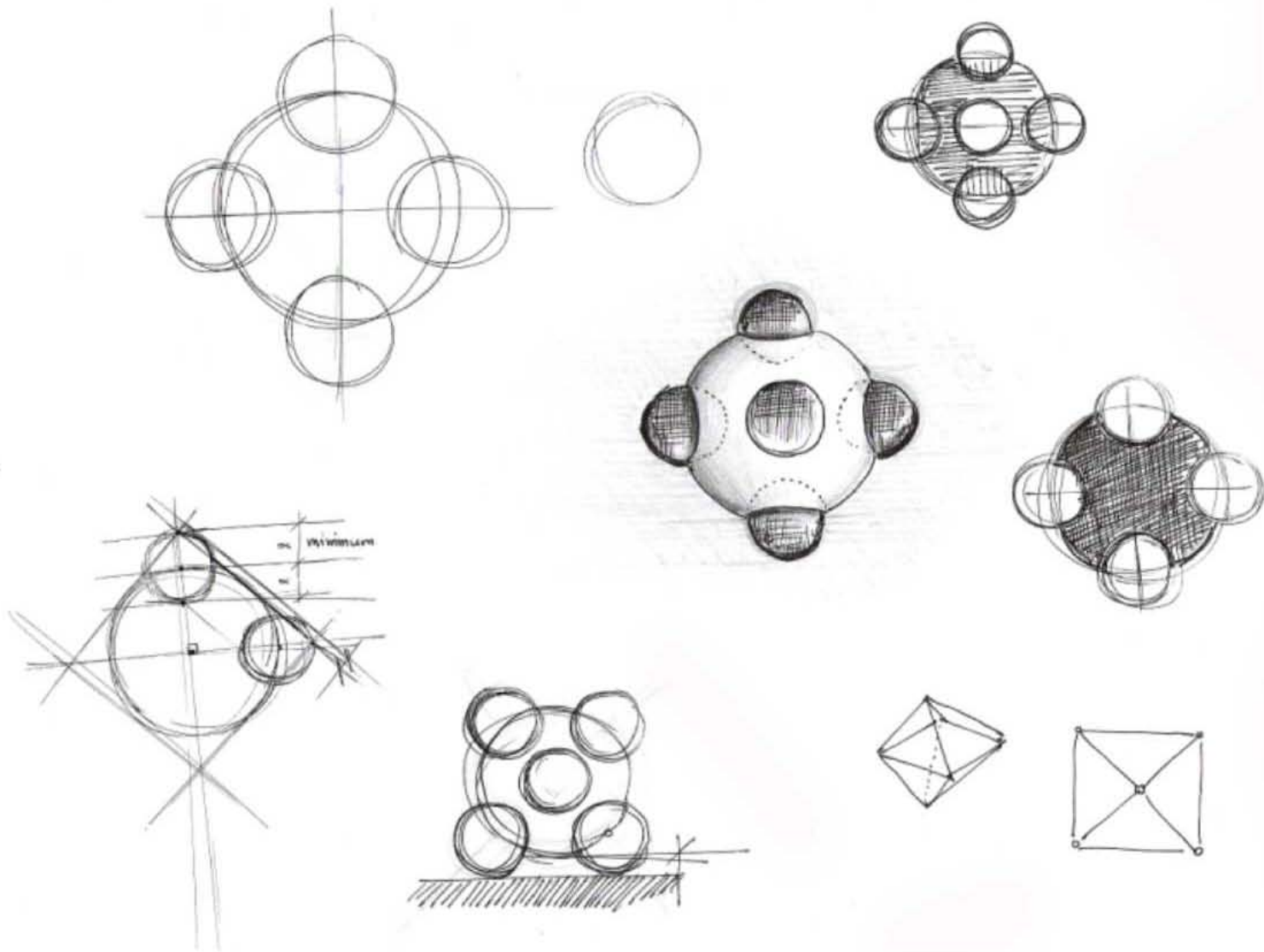
.....& they all performed skit of
'RAMAYAN' that day in society
cultural program



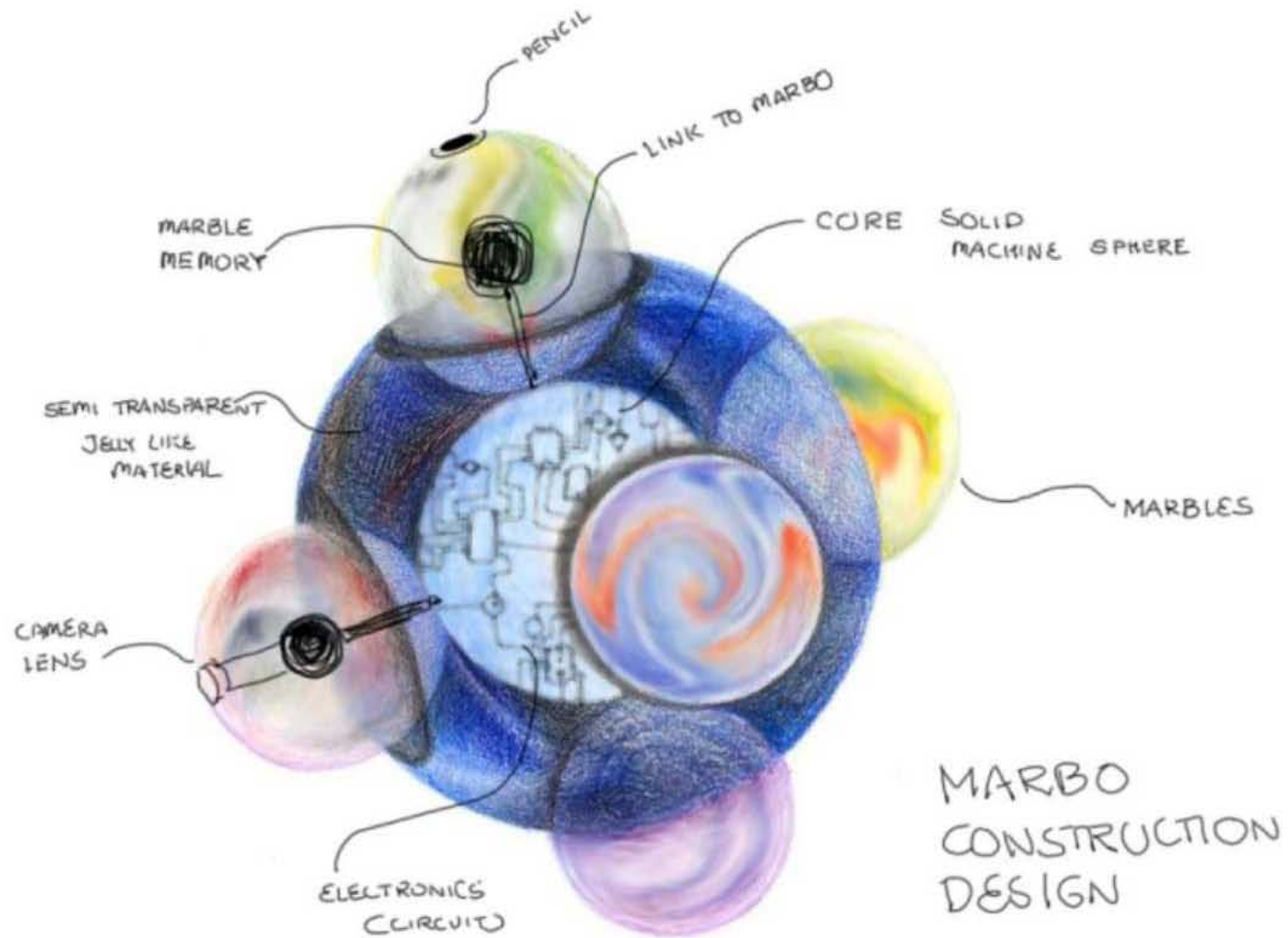


Next day Pintu shared his fun with his school friends in his Marbo

Initial Sketches

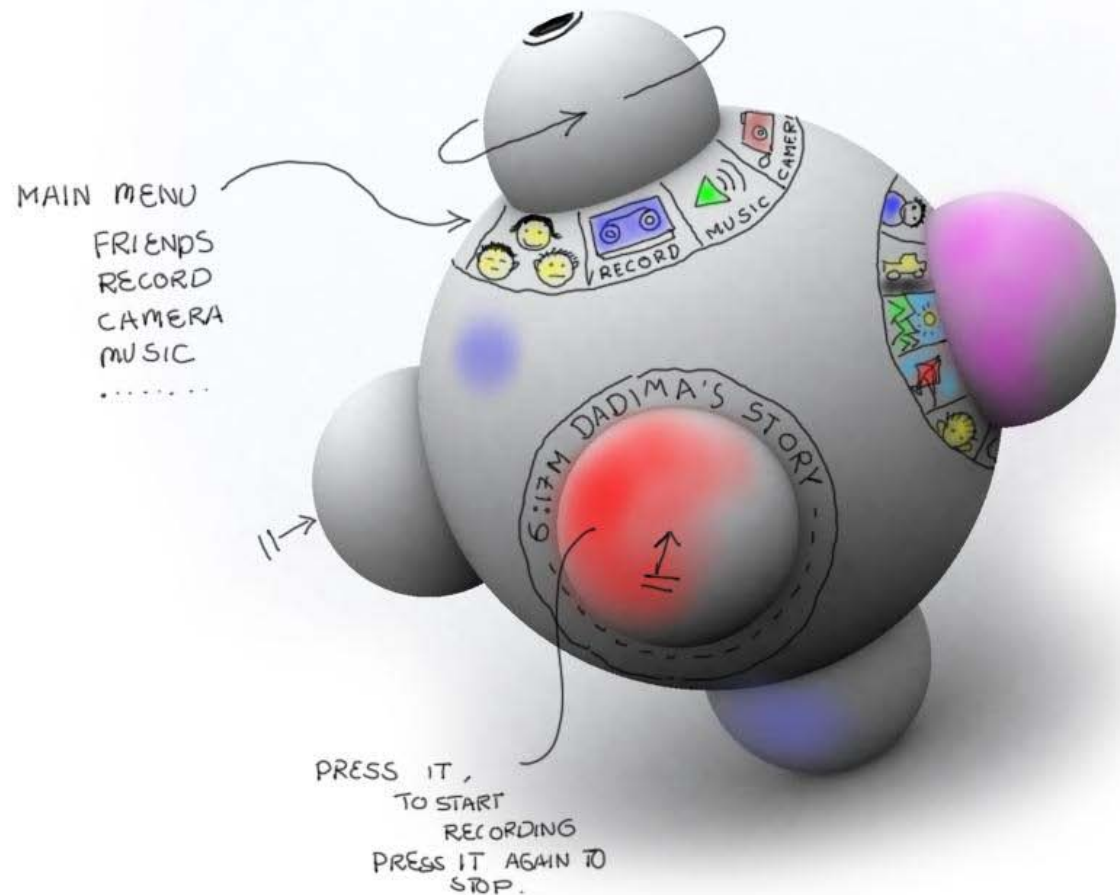


Inside Marbo





Interaction with Marbo



MARBO has a main display screen, on which menus are displayed, child can doodle, draw,....

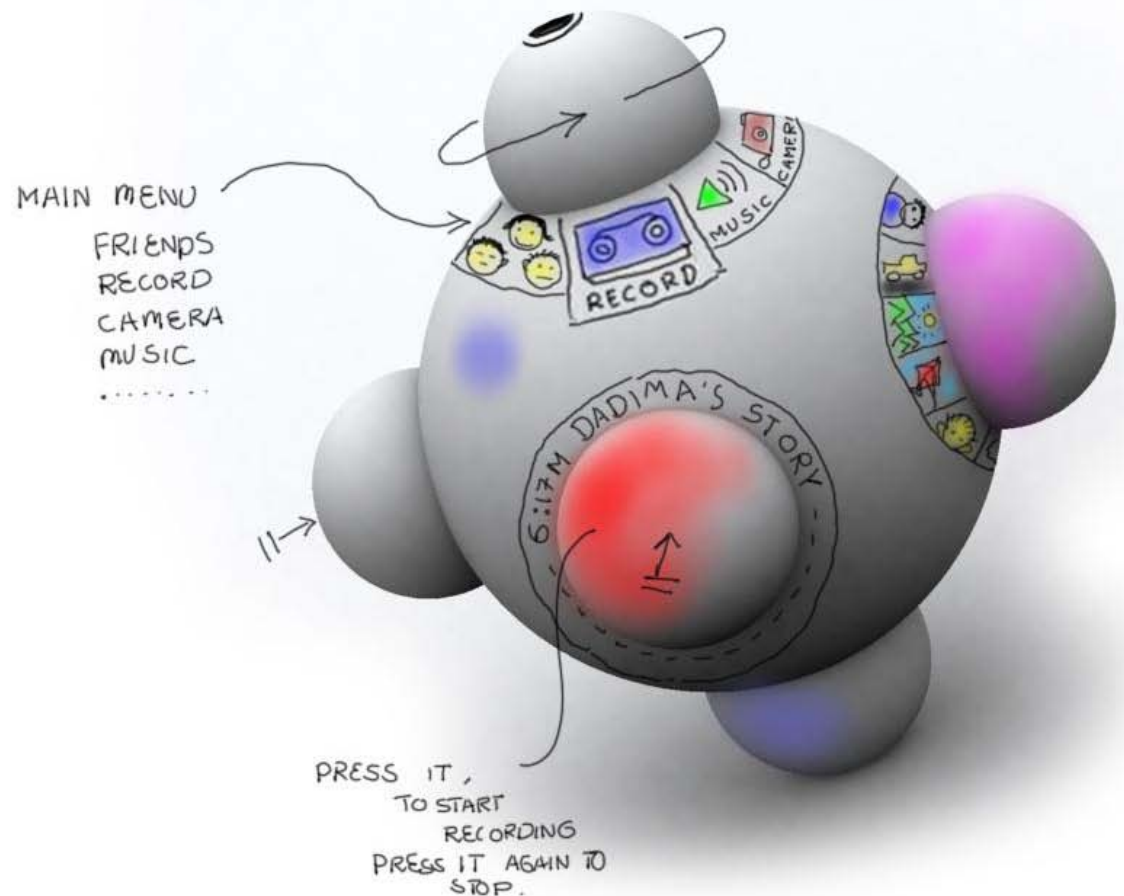
Each marble on the sides can be detachable and sharable to others. These marbles can contain stories, music, pictures,...

Marbo Interface

MARBO has one main marble. The main marble represents the child. Main features of MARBO are around it, like Friends, Record, Music, Camera, Drawing

Children can select the feature by turning the main marble & pressing it, whatever they want to select.

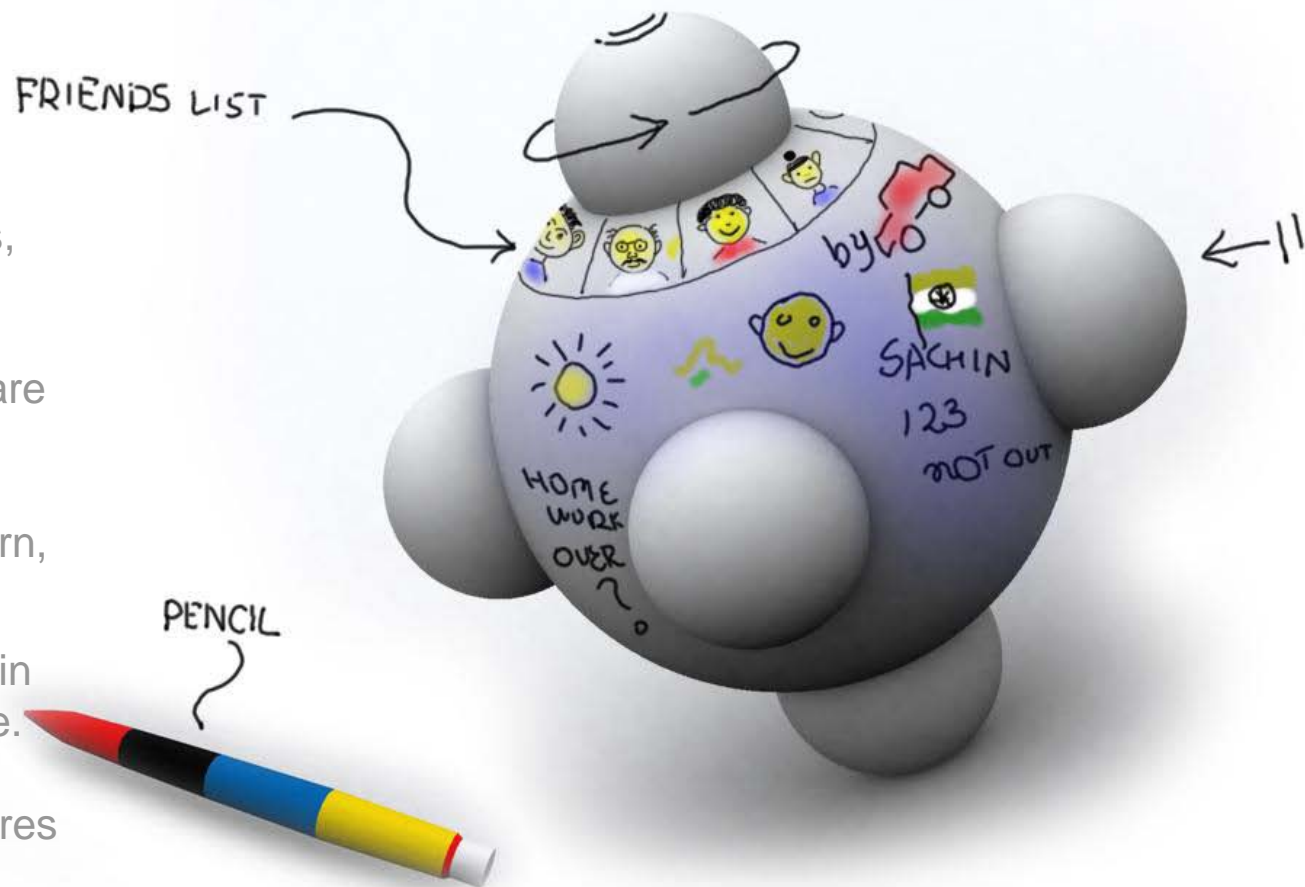
Record is selected as in the MARBO beside. Now they can record Grandma's story in any other marble.



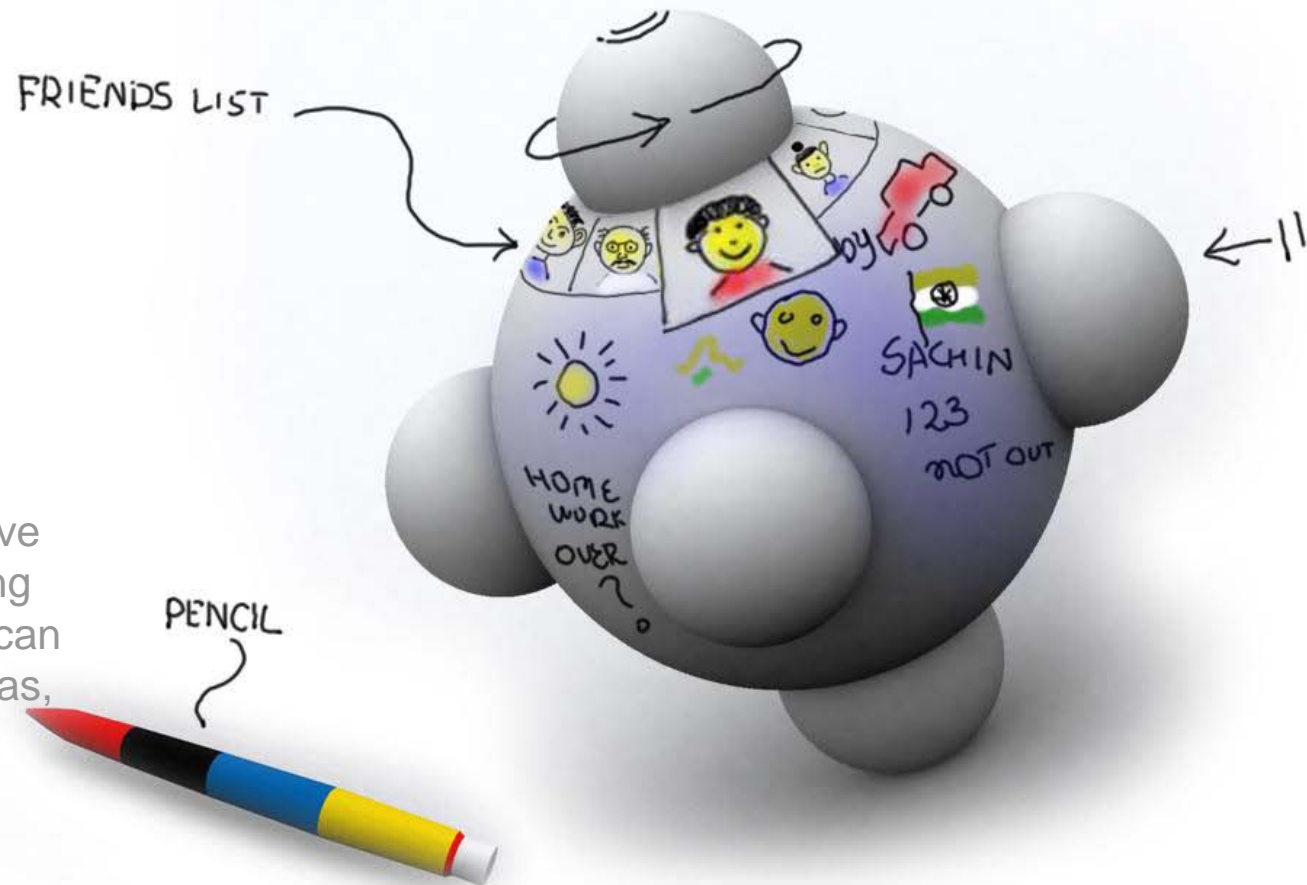
Marbo Interface

Child can contact to friends, parents, teachers, relatives with his MARBO. He can doodle on the screen & share his feelings with sound, pictures, doodling. They together can plan, play, learn,have fun.

MARBO has a pencil also in it, contained in main marble. Child can use it to doodle, draw and even select features from menus.

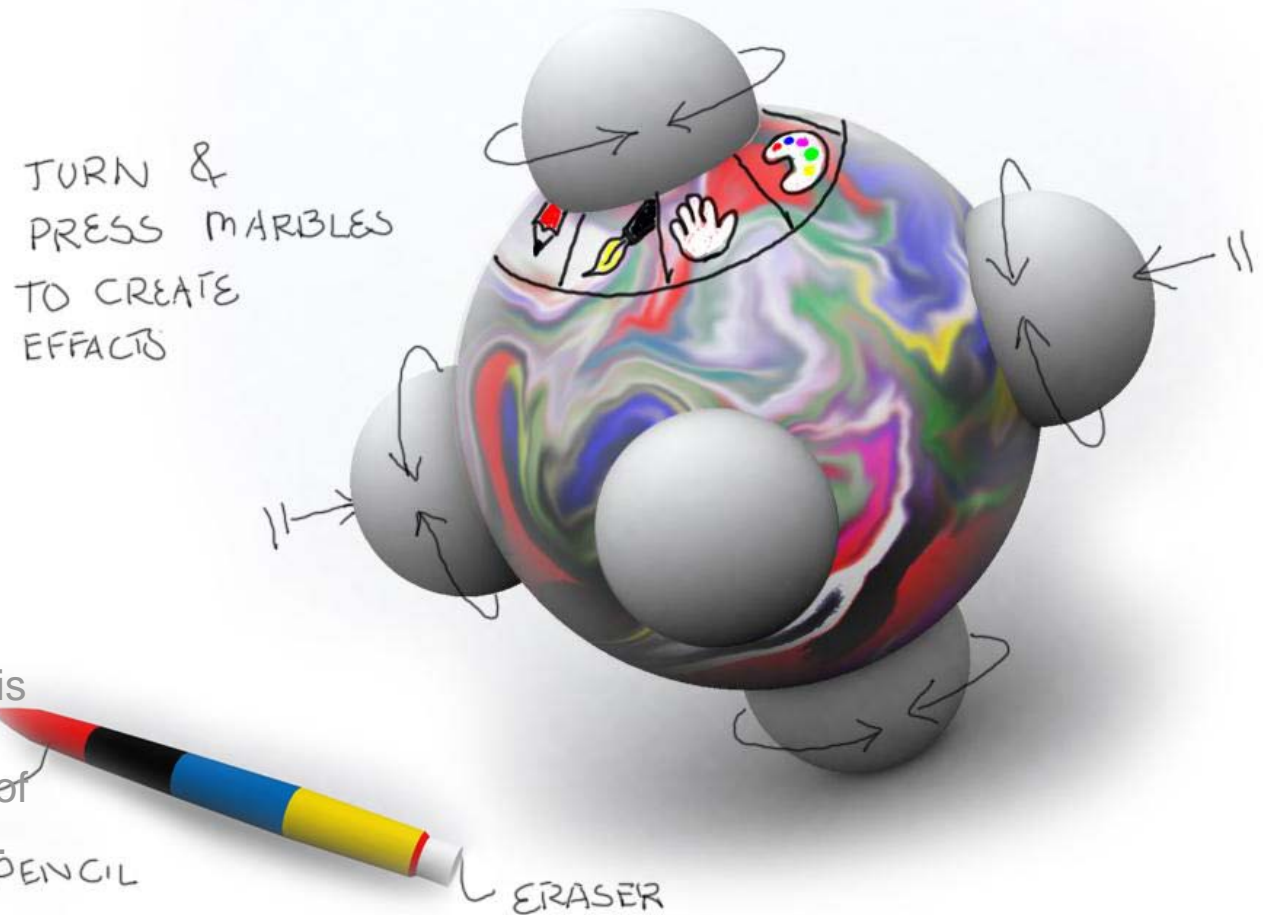


Marbo Interface



With MARBO, child can have group learning, fun, planning session with friends. They can paint together on one canvas, can have a group music building, can play together, exchange their ideas.

Marbo Interface



MARBO has a very good property of customizing the look & feel. Child can paint his MARBO according to his choice. He can have picture of Pokemon or Spiderman on it.



Feedback



Feedback from children



I can detach this marble and give it to my friend!!



Oh we can scribble on it!



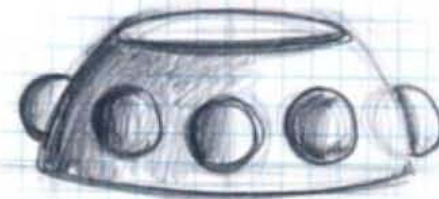
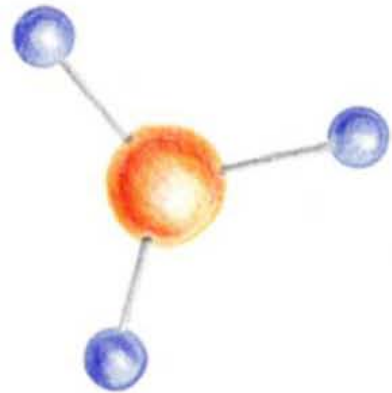
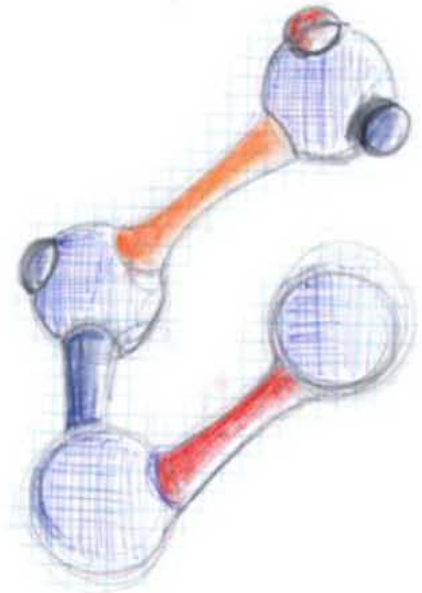
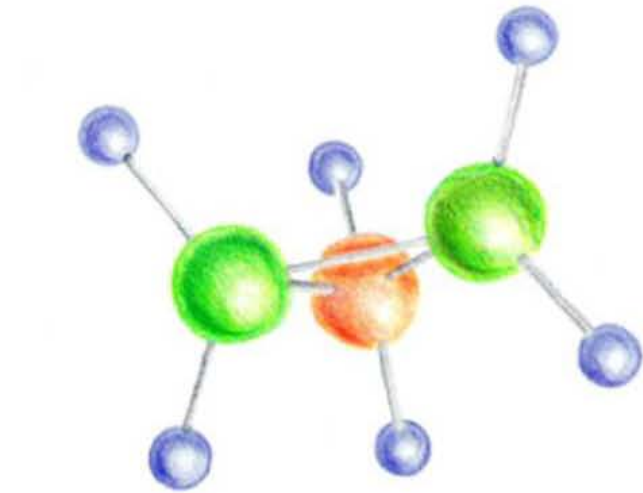
We want it!!



Can I change the way it looks?



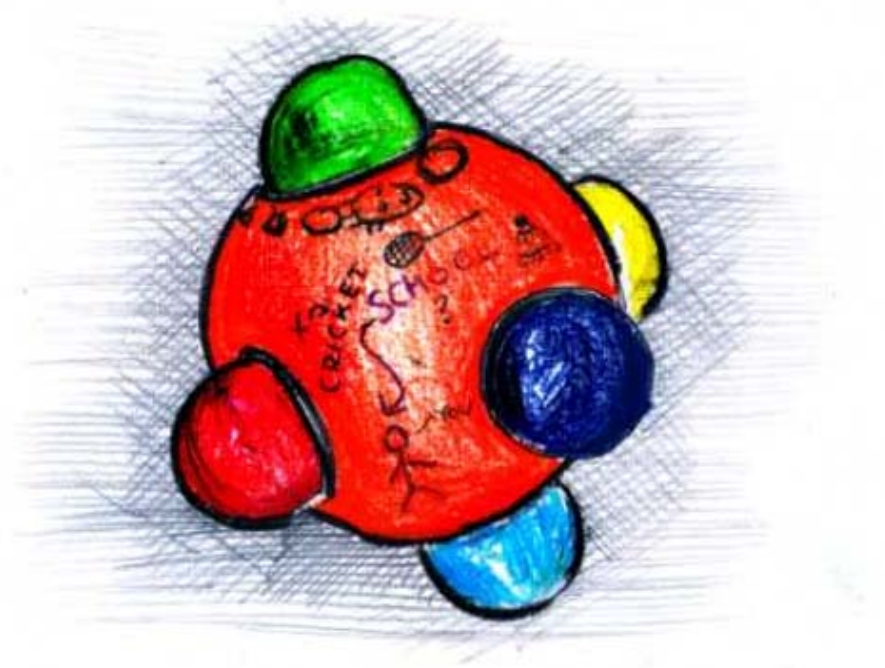
Marbo Variations





Extended Scope for Marbo

- . Education
- . Construction
- . Parent child relationship
- . Teacher child relations
- . School and MARBO
- . Learning
-





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NAVNIRMITI

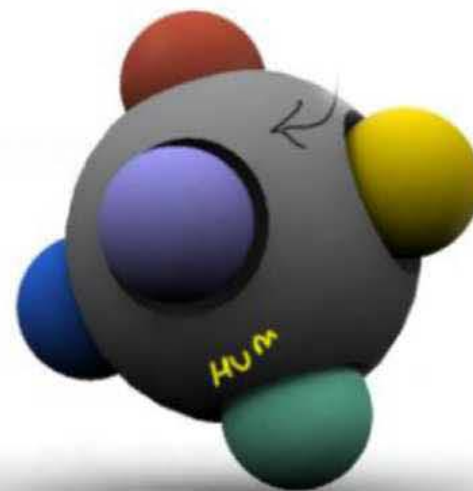
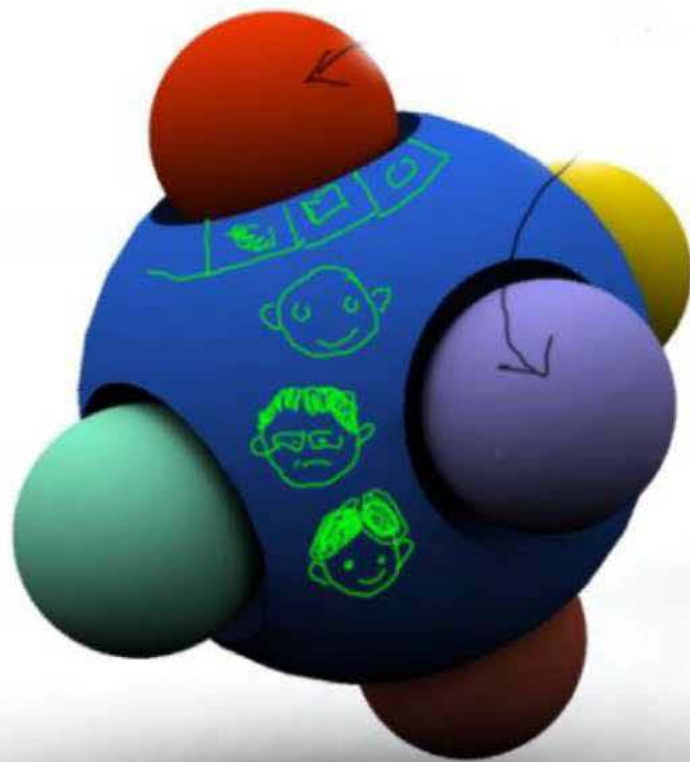
To all the kids



Thanks

THANK YOU

VERY MUCH
~~MACH~~



-
Amisha
Muthukumar
Pranav