# NEERAJA BARADE SIVAJI

INDUSTRIAL DESIGN PORTFOLIO

ARRIS

SIDEBYSIDE STUDIO

DECATHLON

rezonant

tlv product solutions

# NEERAJA BARADE SIVAJI

**INDUSTRIAL DESIGNER**


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5 YEARS OF EXPERIENCE IN THE FIELD AND FAITHFULLY PURSUING DIETER RAMS' 10 COMMANDMENTS OF GOOD DESIGN, MY BIGGEST LEARNING HAS BEEN HOW BEST TO CRADLE A CONCEPT FROM PAPER THROUGH SOFTWARE INTO A LIVING, WORKING, TANGIBLE RESULT.

## EDUCATION

POST GRADUATION
MA DESIGN 2013-2014
NORTHUMBRIA UNIVERSITY
NEWCASTLE UPON TYNE, UK

GRADUATION
GRADUATE DIPLOMA IN
INDUSTRIAL DESIGN 2008-2012
D. J. ACADEMY OF DESIGN, INDIA

## EXPERIENCE

**ARRIS INDIA PVT. LTD.**
SENIOR INDUSTRIAL DESIGNER
DEC 2017 - FEB 2019

**SIDEBYSIDE STUDIO**
INDUSTRIAL DESIGNER
JAN 2017 - DEC 2017

**DECATHLON SPORTS INDIA**
INDUSTRIAL DESIGNER
MAY 2015 - DEC 2016

**REZONANT DESIGNS**
INDUSTRIAL DESIGNER
JAN 2013 - SEPT 2013

**TLV SOLUTIONS**
INDUSTRIAL DESIGN INTERN
JAN 2012 - MAY 2012

## SOFTWARE EXPERTISE

SOLIDWORKS
RHINO
KEYSHOT
ILLUSTRATOR
PHOTOSHOP
INDESIGN
MICROSOFT WORD
POWERPOINT
ADOBE XD

## EXPERIENCE HIGHLIGHTS

ARRIS - CONSUMER ELECTRONICS DESIGN & DEVELOPMENT

Designed a range of smart consumer electronics such as sound bar, wi-fi extenders with Bluetooth speaker and compact IP TV set-top-boxes. These devices combined consumer electronic functions with voice + visual assistance, and IoT capabilities.

DECATHLON SPORTS INDIA

New product range design & development for Decathlon's cricket brand, FLX. Upscaling the range for different price points through user research, benchmarking, trend analysis, stakeholder management & making design language guidelines.

STEM TOY

A bespoke coding toy made up of a set of modules, programmable through an app. Users learn to code these physical modules through the supporting app; the app is designed to be intuitive and capture the imagination of kids as the edgy design language connects the product and the app experience.

## SKILL - SET

IT Accessory Design • Trend Analysis • Concept Sketching • CAD Modeling & Rendering • Prototyping • Design for Manufacturing • Attention To Detail • Time Management • Project Management • Liaising With Suppliers / Vendors • Multi tasking • Collaborating With Stakeholders • Organised • Team Oriented • Proactive

# INDEX

# ARRIS INDIA PVT. LTD.

Smart media devices - Sound bar

DESIGNED TO COMBINE WI-FI DEVICES AND DE-CLUTTER HOMES, THIS DEVICES IS A MULTI-FUNCTIONAL SOUND BAR THAT CHANGES THE WAY ENTERTAINMENT AND HOME SERVICES ARE DELIVERED WITH VOICE-VISUAL ASSISTANCE, AND IOT ENABLED SERVICES.

CONCEPT

Combining a cable zapper set-top-box with sound bar speakers in orders to integrate two of the most basic and important television experience ancillaries. The set-top-box is Android enabled for those seeking only OTT internet services in addition to bluetooth and wi-fi pairing for Google Assistance or Alexa.

The unit is designed to allow wall mounting as well as be placed on table top.

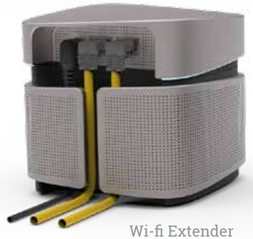

CONCEPT

The glossy central console of the sound bar houses the STB and speaker controls, operated through illuminated capacitive touch buttons and the speakers on either side are covered with speckled dark grey fabric that imparts a soft home interior appeal.

# ARRIS INDIA PVT. LTD.

Smart media devices - Wi-fi extender/STB with modular smart speaker


WI-FI EXTENDER/SET TOP BOX DESIGNED TO WORK ALONG WITH A MODULAR BLUETOOTH ENABLED SPEAKER TO INTEGRATE VOICE ASSISTANCE SERVICES SUCH AS GOOGLE OR ALEXA



Wi-fi Extender

STB

CONCEPT

The wavy contours of the unit with the offset base lends an elevated feel to the device and looks complete stand alone as well as when paired with the speaker.

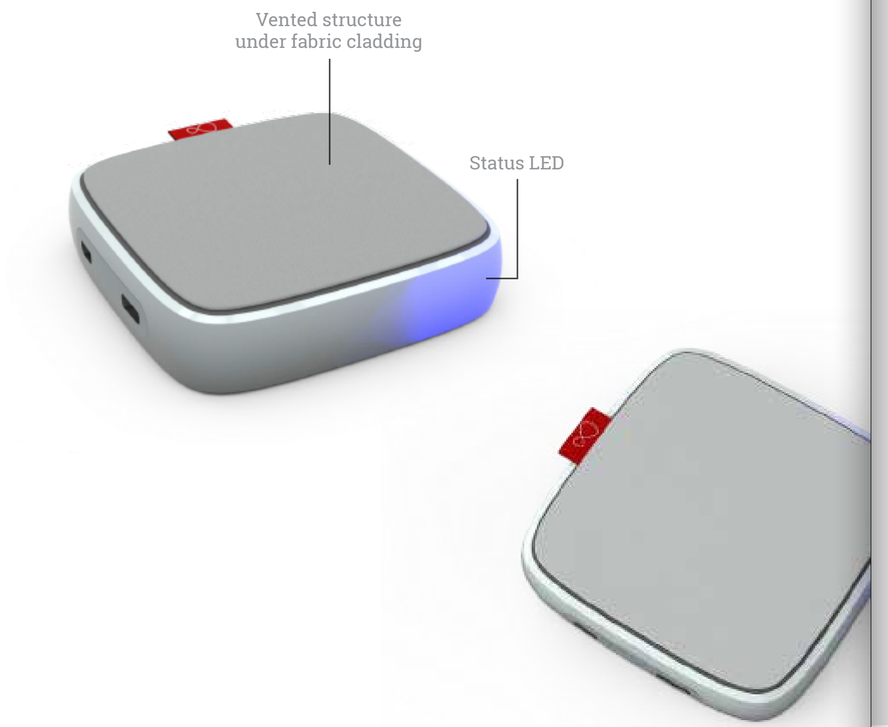
The status LED glows through a downward facing lightpipe that runs along the edge of the bottom contour.


# ARRIS INDIA PVT. LTD.

110x110mm Compact IP TV Set Top Box

CONCEPT

The compact sized IP TV set top box is designed to be wall mounted or mounted behind the television unit to reduce any clutter around the base of the TV.




CONCEPT

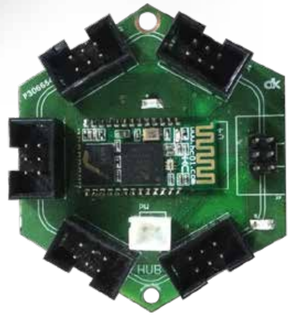
Due to its ultra small footprint, the device was designed with vents integrated as a part of its structural construction that is covered with fabric cladding. The fabric allows ventilation and doesn't make the product look like a conventional set-top-box.

# STEM TOY

Programmable modules that teach coding


THE PROJECT CONSISTED OF A PRE-DETERMINED SET OF CODABLE MODULES. THESE MODULES CAN BE CATEGORISED AS INPUT AND OUTPUT MODULES DEPENDING ON THEIR FUNCTIONS. EX., LED, 7-SEGMENT, BUZZER, POTENTIOMETER, SWITCH ETC..

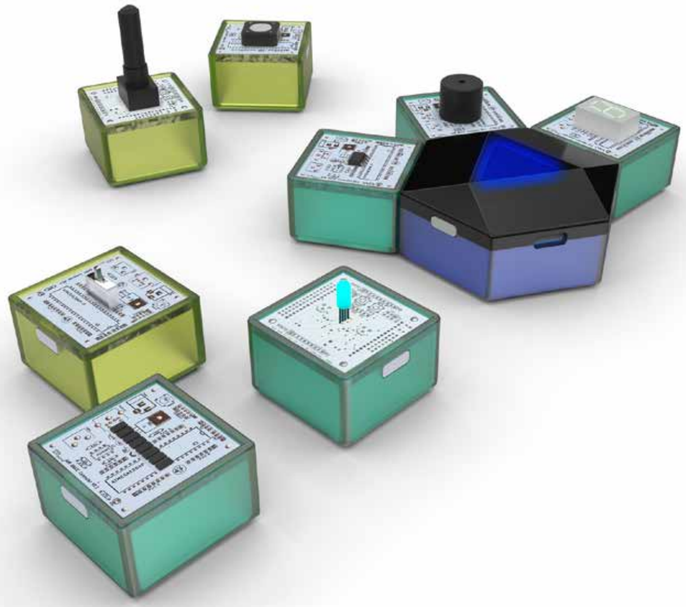
THESE MODULES WORK ALONG WITH AN APP THAT ALLOWS THE USER TO PAIR THE MODULES WITH A CENTRAL PROCESSING UNIT 'THE BRAIN' AND WITH EACH OTHER TO CARRY OUT THE INPUT AND OUTPUT FUNCTIONS.



## CONCEPT

The product required the provision for multiple modules to be plugged to ‘The Brain’ simultaneously. This allows various combinations of input and output modules to be programmed with each other in order to execute the desired output.

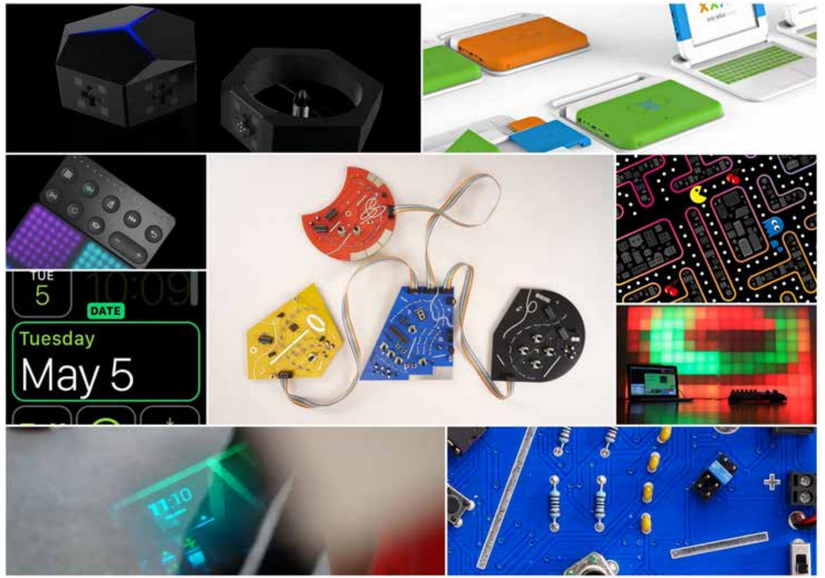
The Brain being a hexagonal form, allows a maximum of 5 + (1 battery) modules to be plugged in simultaneously. Each module is designed to have a naked appeal with single component mould.



## APP CONCEPT

The modules can only be activated when programmed through the app. They are essentially inactive until the user codes them with the help of the app.

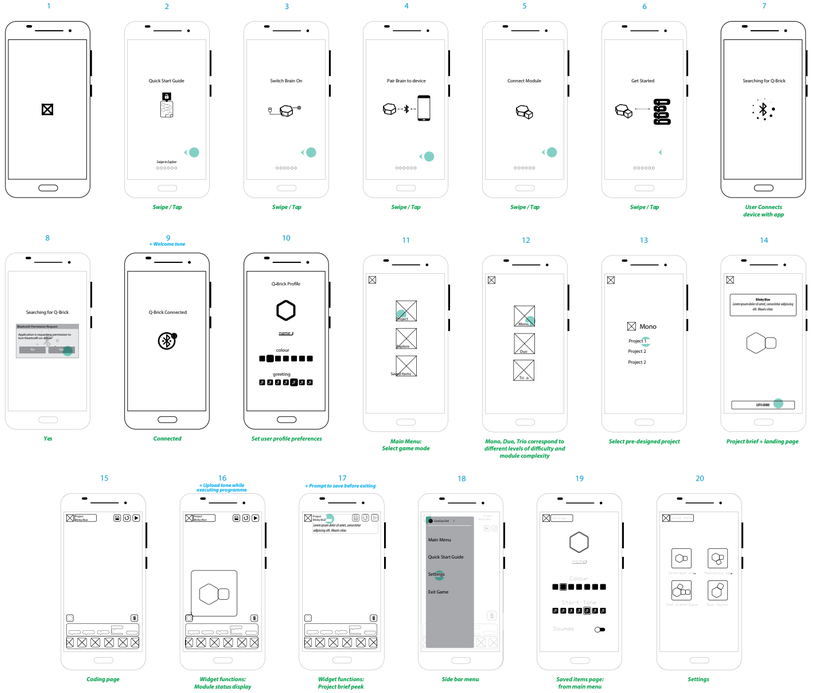
The app is designed to have a cybernetic experience with a holographic colour palate.



## APP

Wireframes were generated by mapping user personas, key functions, task flow analysis and understanding the information hierarchy.

The UX direction resulted in a clean and simple layout that is adaptive to each active module there by making it more intuitive and easy to learn.

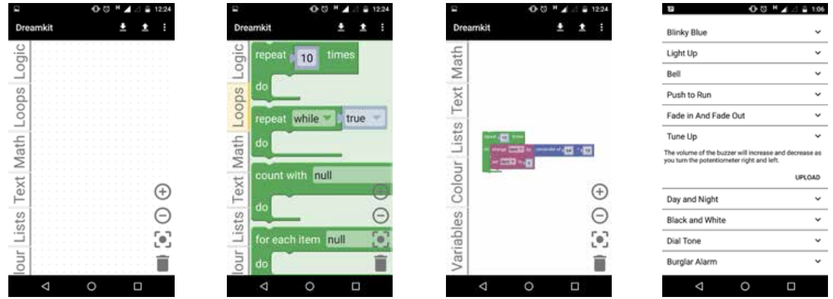



## APP DESIGN

The interface is designed to deliver the primary functions in the easiest manner possible at every page. As the main objective of the product is to teach coding to beginners, it is important for the app to not intimidate a first-time user.

The coding page is a dynamic spread that adapts according to the connected modules. Any connected module will reflect a fixed number of functions pertaining to it and every function will reflect a fixed set of sub-functions.

The functions are drag and drop icons that can be linked to one-another to create an action.




# DECATHLON

Brand development,
User Research,
Range design & upscaling
Trend and colour analysis,
Soft goods design - caps, protectives, bags;
Apparel design,
Footwear Design
Visual merchandising,
Stakeholder management & Vendor Management



RANGE DESIGN AND UPSCALING:
1.) DISCOVERY - FOR KIDS AND/ OR BEGINNERS
2.) INTERMEDIATE - FOR CASUAL CRICKETERS AND TRAINING
3.) PROFESSIONAL - FOR CRICKETERS WHO PRACTICE IN ACADEMIES AND PLAY PROFESSIONALLY.

DISCOVERY RANGE

On the right here is the discovery range for kids. Silhouettes were designed keeping in mind colourful bats and apparels for the age group of 3-9. Bat graphics were meant to indicate the sweet-spot of a bat as an idea of initialising them to the world of cricket.


## INTERMEDIATE RANGE

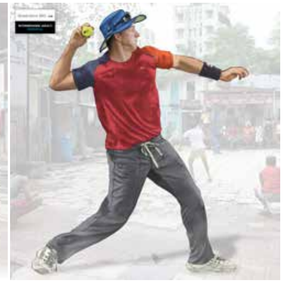
The intermediate cricket range connects the design language across apparels, tennis ball bats and footwear.

Apparel materials range from spun/woven cotton-polyester with elastane for flexibility, wicking properties and freedom of movement.

Flip-flops materials include high-density foam, rubber and PU with screen printed graphics.

Screen printed vinyl stickers were created for the poplar wooden cricket bats.







## PROFESSIONAL RANGE

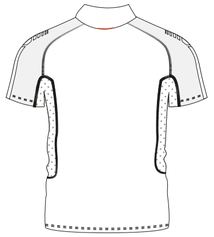
The academy practice and professional cricket range brings together the design language across cricket whites, English willow bats and cricket protectives.

Apparel materials include, knit-polyester fabric and meshes. The polyesters used are of optimal GSM to keep the apparel light weight and the usage of mesh at areas that lend additional breathability.

Polycarbonate screen printed stickers with mirror and hologram effects offer users a premium, high performance appeal.

Rubber grips with dual textures to aide with different motions for top and bottom zones of the handles.




# LIFESTYLE ACCESSORIES

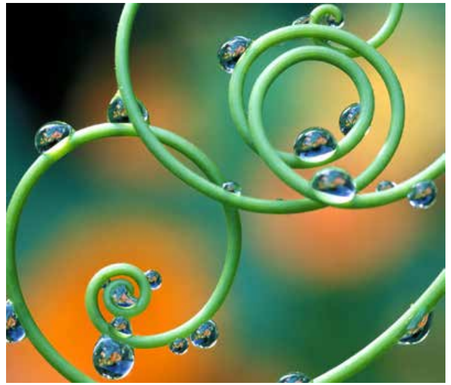
Premium serveware range

TILT™

TILT IS A LIFESTYLE ACCESSORY BRAND BY THE FOLEY GROUP. FOR THIS PROJECT, I DESIGNED A RANGE OF PREMIUM SERVEWARE FOR FOOD PRESENTATION AND SERVING. THE PRODUCTS CAN BE CONSIDERED AS 'SPECIALITY SERVEWARE' AS THEY DISPLAY A HIGHLY STYLIZED YET MINIMAL VISUAL LANGUAGE.

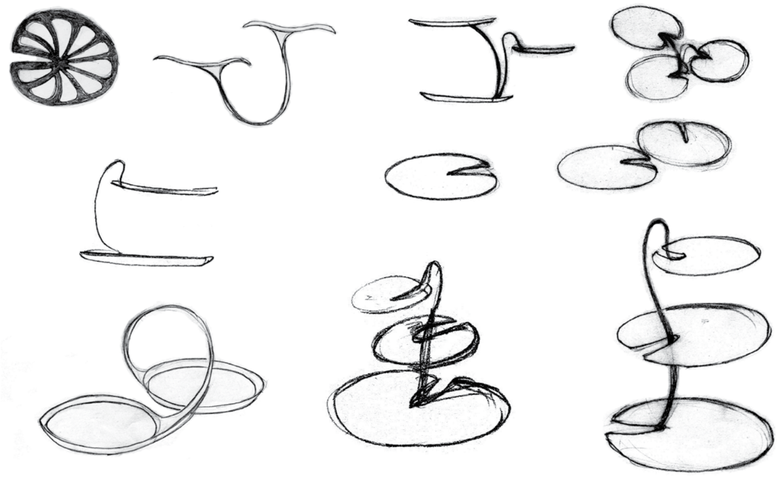
## INSPIRATION

The range was inspired from a purely organic mood-board that helped derive delicate forms from foliage patterns.



## CONCEPTUALIZATION

The products were designed for the purpose of presenting and serving short eats, snacks, desserts and small finger foods. Forms were inspired from the lotus leaves as traditionally some cultures use them to serve food.



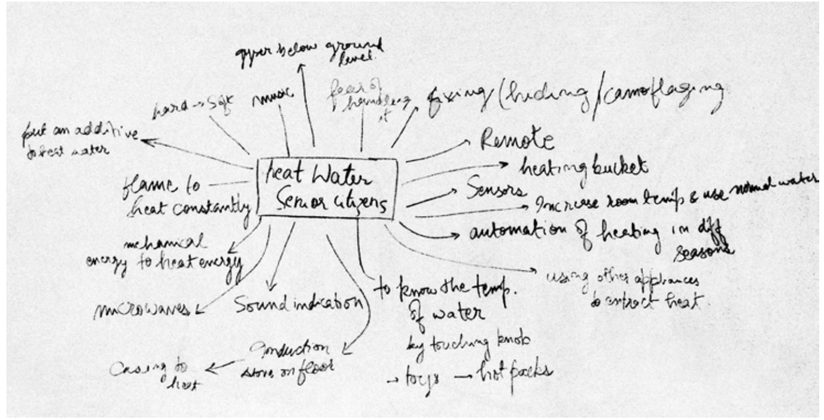
## FINAL DESIGN

The final set of products was a range of serveware, serving desserts and pâtisserie. The materials used included stainless steel frames and walnut wood with a ceramic option for plating.

# SMART WATER HEATER

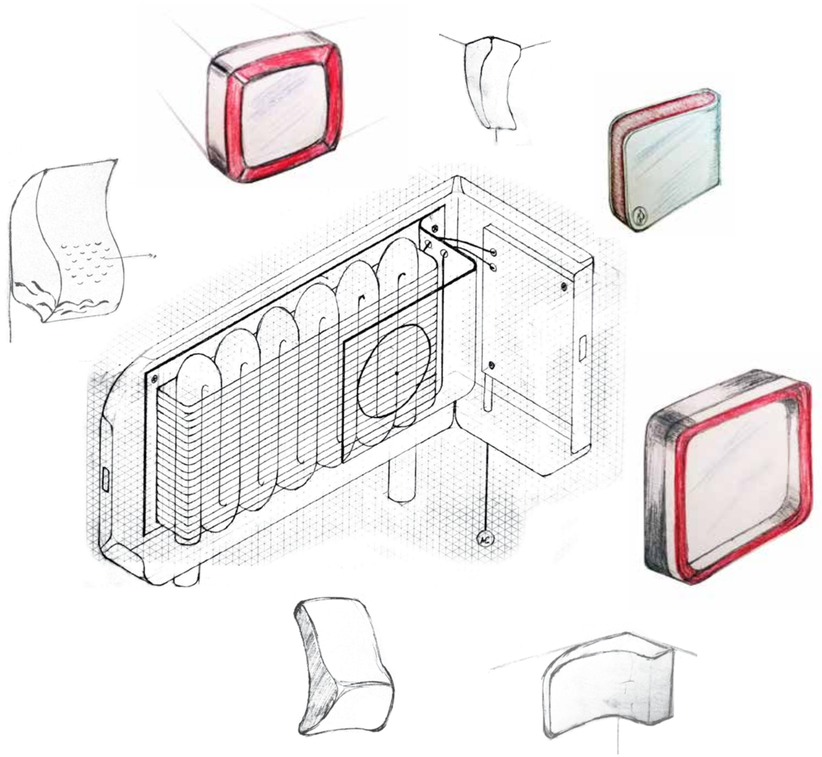
Energy efficient water heating system using the *induction method*

WATER HEATING PRODUCTS PRESENTLY RANGE FROM STORAGE AND INSTANT WATER HEATERS TO IMMERSION HEATING RODS AND SOLAR WATER HEATERS. HEATING ELEMENTS CONSUME VERY HIGH POWER AND MAY NOT FUNCTION TO THE FULLEST UNDER LOW VOLTAGE SCENARIOS.




CONCEPTUALIZATION

The form of the product is minimal and intuitive from a functional aspect. The design had to integrate functions such as display and control to regulate the water heating system in real-time in addition to indicating the heating status and audio alerts for feedbacks.



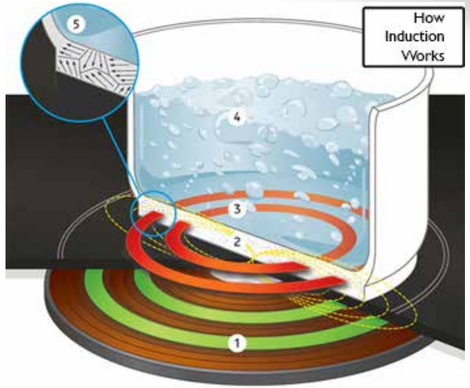
## THE DESIGN

The design is a wall mounted product sporting a weather-sealed touch display. The heater detects the temperature of the in-flowing water and allows the user to set a required temperature. Once set, the product indicates the readiness for using hot water as the display glow shifts from blue to red. It also sends out auditory signal if the heater is on for a long duration when it senses no water movement.




## THE WORKING

The heater works on the principle of an induction heating system. In induction cooking/heating, a high-frequency electromagnet (1) generates a strong electromagnetic field (3) and when a piece of magnetic metal (2 i.e. steel) is placed in this field, the field induces energy (5 i.e. heat) in the magnetic vessel/container. Heat from this vessel is transferred to its contents (4) that is used for cooking or heating as in case of the heater here.

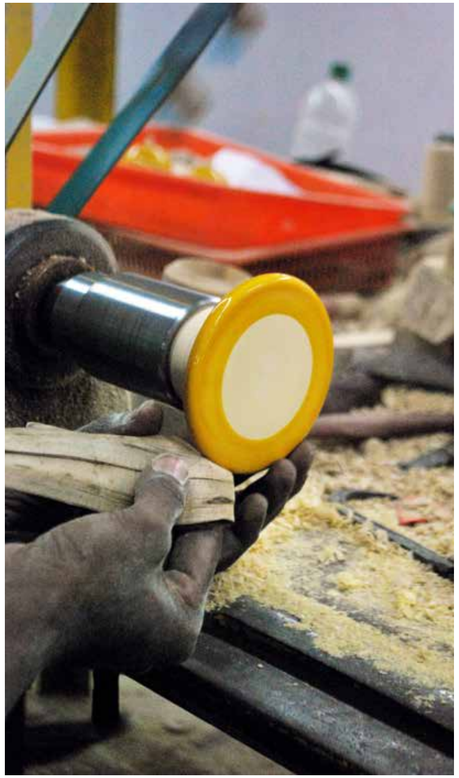
# TOY DESIGN

Toy design for Gween toys -
Pretend play and stacking toy


GWEEN CREATES TOYS THAT INSPIRES CHILDREN ON 3 KEY PARAMETERS: EDUCATION, ENTERTAINMENT AND ECO-FRIENDLINESS.

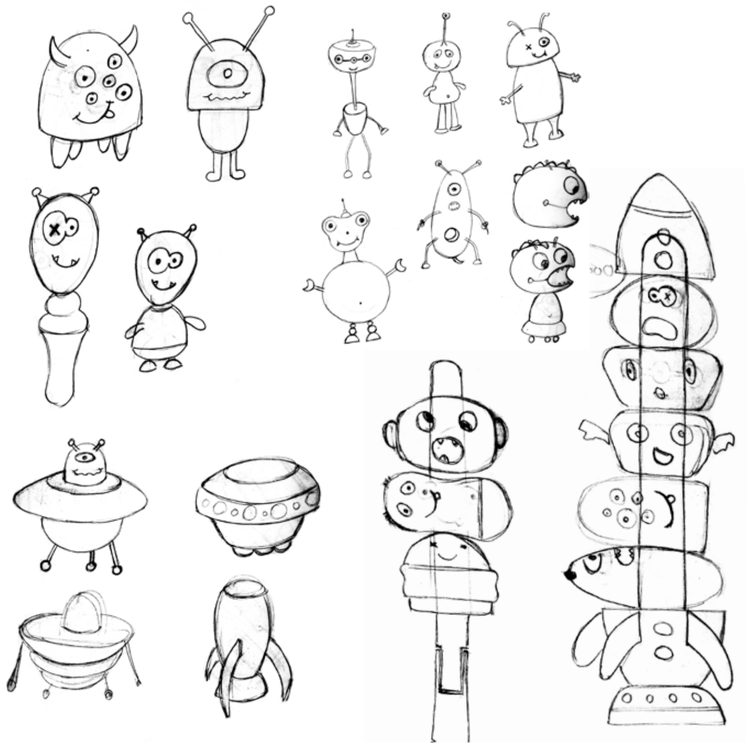
## CHENNAPATNA CRAFTS

These toys are manufactured in the town of Chennapatna in Karnataka, India. Traditionally, the craft involves lacquering lathed wood of the *Wrightia tinctoria* tree locally called as *Aale mara* (ivory-wood).



## IDEATION

The story of the design is spun around a group of mythical characters who have travelled to Earth as they realise ours is the only planet that sustains life for plants and animals, provides water to drink and air to breathe for all living beings (Depicted on the insides of the packaging).



## TESTING & ITERATIONS

The design had to go through multiple rounds of modelling & prototyping to have it pass through the ASTM International (American Society for Testing and Materials) standards that take into consideration permissible component sizes, drop tests to check risk of breakage and usage of child safe materials among other tests.

FINAL DESIGN

The final design is a stacking+counting toy for children aged 6-15 months. The toy predominantly aides in pretend-play while initiating the concept of counting. It also comes with a Flying Saucer ancillary that adds to the fun of pretend-play. The sizes of each of the characters are graspable and the forms help develop the motor skills and hand-eye coordination in children.

# CUP AND SAUCER

A simple and smart cup and saucer design

THE DESIGN IS A SIMPLE SOLUTION TO THE PROBLEM OF HAVING TO DEAL WITH A DRIPPING TEA BAG WHILE CONSUMING DIP-TEA. THE ACENTRIC RING CREATES A BOUNDARY THAT PREVENTS THE EXCESSIVE LIQUID DRIPPED FROM THE TEA BAG FROM COMING IN CONTACT WITH THE BOTTOM OF THE CUP.

## DESIGN

The double-walled cup design complements the saucer as it eliminates the need to having a handle.

THANK YOU