

# Project Proposal

Nivay Sahaye  
ID4012 @ GaTech  
Fall 2012  
Kidsii Project Proposal



# Table of Contents

1.0	Executive Summary .....	3
2.0	Introduction .....	4
3.0	Project Intention .....	5
4.0	Research Summary .....	5
5.0	Project Criteria	
5.1	User Criteria .....	6-11
5.2	Need Finding.....	12
5.3	Market Criteria .....	13-14
5.4	Ergonomic & Jurisdictional Criteria.....	15
5.5	Material Criteria .....	16
5.6	Design Criteria	
	a.    Aesthetic/Emotive Criteria.....	17
	b.    Physical Development.....	18
	c.    Cognitive Development.....	19-20
	d.    Ingenuity.....	21
5.7	Cost Criteria .....	22
6.0	Contacts and Resources.....	22
7.0	References and Bibliography .....	23

The goal of this project is to design an infant toy for the Bright Starts brand. The opportunity for this project lies within the holistic approach of the toy, encompassing both physical and cognitive development, will require ingenuity and is to be packaged in a form that is “fresh”, and aesthetically appealing. Research and conceptualization will be conducted hand in hand keeping in mind the end user criteria, what is available/lacking in the current market and making sure the design is conscious of safety requirements. The toy needs to be playful, durable, challenge the child, encourage multi sensory stimulation, subtle implementation of electronics, hard over plush, inspire creativity, at a price point around \$29.99 all while delivering on the design criteria.

### *Moving Forward*

Post research phase will feed and justify concept sketching and ideation based on need finding established by stakeholder research. Design criteria post research also proves relevant for drawing inspiration and ideation.



Kidsii is one of the largest toy design companies in the world and accounts for a 25% market share of toys in the United States focusing on nimble and responsive market opportunities, a leader in price and value and experts in product development. This sponsored project with Georgia Tech has a goal of designing an infant toy for their Bright Starts brand, specific retail category of “infant box toy”. The design will start with an in depth research analysis intent on discovering design opportunities based upon several project criteria (sustainability criteria, market research ergonomic criteria, functional criteria, material and physical criteria, manufacturing/production criteria, aesthetic and emotive criteria, jurisdictional criteria, distribution/implementation/ buy in and cost criteria). Relevant stakeholders include Kids II design and marketing team, parents/caregivers, medical affiliations and the baby. Conceptual development will follow the research phase which will include sketching, rapid prototyping user testing leading to a final concept rendering, volume model and process book.

A good toy design should be appealing, simple and intuitive, adjustable and or have flexible use, promote healthy development, use technology that is appropriate and complements the play pattern, reflect the essence of the brand, meet safety requirements and finally be feasible to produce.

To achieve a holistic approach a set of four design criteria has been established by myself to guide the research and conceptualization phase. They include: physical development, ingenuity, cognitive development and aesthetics.

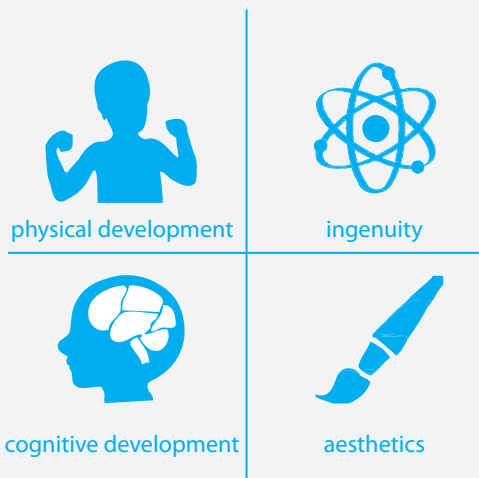
*physical development:* of a child’s fine and gross motor skills, balance, coordination, and body language

*cognitive development:* of a child’s problem skills, communication, reasoning, social interactions and cooperation.

*ingenuity:* with regards to new technologies, current research based on children, interactive, new materials and child safety

*aesthetics:* the toy needs to be durable, tactile, secure, plush, simple and reflect the Bright Starts brand.

The Bright Starts brand are “clever and engaging, designed to spark smiles and laughter, inspire confidence and curiosity”.



To design an infant toy for the Bright Starts brand, the retail category is "infant box toy". Infant toy box is defined as packaged in a box, intended for ages 9 months to 2 years old, a price range averaging between \$10.00 - \$30.00. Toy materials include plush, plastic of combination. A high level of interactivity and developmental skills need to be addressed, both tactile and analog with less focus on digital interfaces. The toy may incorporate electronics or new technologies and materials. The consumer is the parent but the end user is the baby.

## Research Summary

My approach to gathering information started with primary research. with an understanding of current products in the Kids II family, which were organized into the four design criteria set earlier. Market analysis and benchmarking was conducted to understand competitor trends. A survey was compiled using an online survey engine, this was distributed to my friends and family as well as various parenting forums.

Secondary research included reviewing articles exploring developmental milestones/concerns for children.

Tertiary research was provided by KidsII in the form of a presentation which included an overview of the company, project design criteria, toy safety guidelines and a Bright Starts brand overview.



Many stakeholders were taken into consideration, Kidsii design team, parents (evaluation was conducted by Kidsii), other caregivers including teachers, physicians, physical therapists, people who may interact with the child socially and of course children themselves. To further understand the needs of stakeholders four persona's were considered, three children and a parent(again provided by Kidsii).

### Persona Development

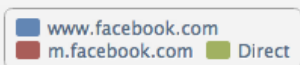
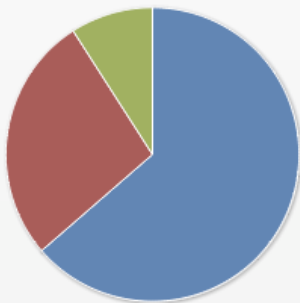
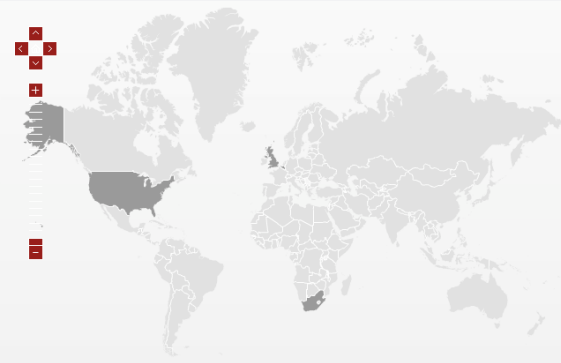
*Sarah:* Is a 6 month old baby girl, with signs of healthy development, her key stakeholders include guardians and social settings, design considerations include "pretty-in-pink" line of toys, toys that are plush, durable interactive, developmental and tactile.

*Chris:* Is a 16 month old boy, with certain cognitive disorders, his key stakeholders are his guardians and physician, design considerations include the "having-a-ball" line of toys offered by Kids II, toys that have symbolic representation, oral expression, are gestural, encourage problem solving and are attention grabbing.

*Mario:* Is a 2 year old boy, with a specific physical disorder (cerebral palsy), his key stakeholders are his guardian and physical therapist, design considerations include the ingenuity line offered by Kids II, toys that encourage exercise, joint protection and aid in walking, balance and motor skills.

*Amanda:* Is a 30 year old infant mom, is married, has a household income of \$60,000.00 and has an infant child, her key stakeholder. Design considerations include knowing her child's needs, cost and function criteria.





## Survey

To further understand Caroline as a stakeholder a brief survey of 20 questions was conducted. The questions asked for simple child demographics and questions were developed based on the four design criteria. Parents were asked to rate sub categories from each set of design criteria on a rating scale. Three short answers were asked, asking for developmental considerations if any of the child, what parents are looking for in toys of today and the average price they pay for their toys. The survey was generated and posted on various parenting forums, reaching several states within the United states as well as other countries including Great Britain, Belgium and South Africa. Online posting allowed for users to answer the questions in their own time and limiting various biases associated with “in person” surveys.

## Summary of survey

(as per 11 responses)

Gender of child: 64% male , 36% female

Age of child: 45% between 2-3 years

Considerations: One child diagnosed with Autism spectrum.

Physical development: Most parents believe in the importance of gross, fine motor and coordination skills, believing children need aid in developing their muscles.

Cognitive development: Parents agree children learn through play, need to be constantly challenged and that a toy needs to have many possibilities and encourage multi sensory stimulation.

Ingenuity: Parents agree that electronics and interfaces are not important in toys, however there is a grey area regarding traditional toys over newer toys and the interaction between parent child and toy.

Aesthetics: Parents perception of the toy as cute is not a consideration when purchasing, toys with many sounds are perceived as annoying. Hard toys are preferable over plush toys.

Cost criteria: Average price parents pay for toys is \$25.22

What parents would like to see more off in toys today

- “
- educational toys
  - interactive languages
  - safe for the environment and toddler
  - moving parts to stimulate kid
  - small enough to store, but large enough not to be swallowed
  - durability
  - stimulating and pure long lived enjoyment
  - ability to allow the child to explore and stimulate (their)  
creativity, curiosity and yearn to play with the toy time and  
time again
  - hidden electronics/smart features. plush toys with hidden
  - sensors and sounds that don't interfere with the aesthetics
  - different textures
  - more reactions to touch or movement from the baby on their  
own (as opposed to) toys
  - requiring parent (involvement)
  - toys today need less, not more.
  - less packaging
  - less tie-ins with cartoons and marketing
  - more ambiguity with material to spark more free-form creativity
  - something to keep kids active
  - interactive games while awesome are being solely relied on to  
teach kids and when put in front of screens for hours it is  
hurting them not helping them.
- ”
- toys without music as a method of learning.



## Results for: Child's Toy Survey

### 1) What is your child's gender?

male

7 (63.6%)

female

4 (36.4%)

### 2) Please select your child's age range

0-6 months

0 (0.0%)

7-12 months

2 (18.2%)

13- 18 months

0 (0.0%)

19 - 23 months

0 (0.0%)

2- 3 years

5 (45.5%)

3- 4 years

0 (0.0%)

older than 4

4 (36.4%)

### 3) Does the child have any cognitive or physical considerations?

#### 3) Importance of gross motor development skills

1 Not Important	2	3	4	5 Very Important	Responses	Average Score
0 (0.00%)	0 (0.00%)	3 (27.27%)	<b>5 (45.45%)</b>	3 (27.27%)	11	4.00 / 5 (80.00%)
						<b>4.00 / 5 (80.00%)</b>

#### 4) Importance of fine motor development skills

1 Not Important	2	3	4	5 Very Important	Responses	Average Score
0 (0.00%)	0 (0.00%)	0 (0.00%)	<b>6 (54.55%)</b>	5 (45.45%)	11	4.45 / 5 (89.00%)
						<b>4.45 / 5 (89.00%)</b>

#### 5) Importance of coordination

1 Not Important	2	3	4	5 Very Important	Responses	Average Score
0 (0.00%)	0 (0.00%)	1 (9.09%)	4 (36.36%)	<b>6 (54.55%)</b>	11	4.45 / 5 (89.00%)
						<b>4.45 / 5 (89.00%)</b>

## 6) Children should develop their muscles in their own time without aid

	1 Strongly Disagree	2	3	4	5 Highly Agree	Responses	Average Score
	1 (9.09%)	<b>5 (45.45%)</b>	1 (9.09%)	1 (9.09%)	3 (27.27%)	11	3.00 / 5 (60.00%)
							<b>3.00 / 5 (60.00%)</b>

## 7) Children learn through play

	1 Strongly Disagree	2	3	4	5 Highly Agree	Responses	Average Score
	0 (0.00%)	0 (0.00%)	0 (0.00%)	2 (18.18%)	<b>9 (81.82%)</b>	11	4.82 / 5 (96.40%)
							<b>4.82 / 5 (96.40%)</b>

## 8) Children need to be constantly challenged or face being bored.

	1 Strongly Disagree	2	3	4	5 Highly Agree	Responses	Average Score
	0 (0.00%)	3 (27.27%)	2 (18.18%)	<b>4 (36.36%)</b>	2 (18.18%)	11	3.45 / 5 (69.00%)
							<b>3.45 / 5 (69.00%)</b>

## 9) A toy should have infinite possibilities

	1 Strongly Disagree	2	3	4	5 Highly Agree	Responses	Average Score
	0 (0.00%)	0 (0.00%)	3 (27.27%)	<b>6 (54.55%)</b>	2 (18.18%)	11	3.91 / 5 (78.20%)
							<b>3.91 / 5 (78.20%)</b>

## 10) A toy should encourage multi sensory stimulation

	1 Not Important	2	3	4	5 Highly Important	Responses	Average Score
	0 (0.00%)	1 (9.09%)	1 (9.09%)	4 (36.36%)	<b>5 (45.45%)</b>	11	4.18 / 5 (83.60%)
							<b>4.18 / 5 (83.60%)</b>

## 11) Electronics should play an important part in new toys

	1 Not Important	2	3	4	5 Highly Important	Responses	Average Score
	<b>3 (27.27%)</b>	2 (18.18%)	<b>3 (27.27%)</b>	1 (9.09%)	2 (18.18%)	11	2.73 / 5 (54.60%)
							<b>2.73 / 5 (54.60%)</b>

## 12) Toys for today's toddlers need to have an interface (screen, display etc)

	1 Not Important	2	3	4	5 Highly Important	Responses	Average Score
	<b>5 (45.45%)</b>	1 (9.09%)	4 (36.36%)	1 (9.09%)	0 (0.00%)	11	2.09 / 5 (41.80%)
							<b>2.09 / 5 (41.80%)</b>

## 13) Parents want products that allow them to participate in the toy interaction

1 Not Important	2	3	4	5 Highly Important	Responses	Average Score
1 (9.09%)	2 (18.18%)	<b>4 (36.36%)</b>	2 (18.18%)	2 (18.18%)	11	3.18 / 5 (63.60%)
						<b>3.18 / 5 (63.60%)</b>

## 14) I prefer more traditional toys for delivering information over newer toys

1 Strongly Disagree	2	3	4	5 Highly Agree	Responses	Average Score
0 (0.00%)	1 (9.09%)	<b>5 (45.45%)</b>	4 (36.36%)	1 (9.09%)	11	3.45 / 5 (69.00%)
						<b>3.45 / 5 (69.00%)</b>

## 15) I will be more inclined to buy a toy if I perceive it as "cute"

1 Strongly Disagree	2	3	4	5 Highly Agree	Responses	Average Score
<b>4 (36.36%)</b>	2 (18.18%)	3 (27.27%)	2 (18.18%)	0 (0.00%)	11	2.27 / 5 (45.40%)
						<b>2.27 / 5 (45.40%)</b>

## 16) Toys with lots of sounds are annoying

1 Strongly Disagree	2	3	4	5 Highly Agree	Responses	Average Score
0 (0.00%)	2 (18.18%)	3 (27.27%)	<b>4 (36.36%)</b>	2 (18.18%)	11	3.55 / 5 (71.00%)
						<b>3.55 / 5 (71.00%)</b>

## 17) Plush toys are preferable over hard toys

1 Strongly Disagree	2	3	4	5 Highly Agree	Responses	Average Score
2 (18.18%)	<b>5 (45.45%)</b>	4 (36.36%)	0 (0.00%)	0 (0.00%)	11	2.18 / 5 (43.60%)
						<b>2.18 / 5 (43.60%)</b>

An interesting part of doing research is “need finding”, that is finding converging and diverging needs from various stakeholders. This comes from interviews, surveys, reading forums etc, and then comparing thoughts and opinions of your stakeholders. Where are the contradictions and where are the shared expectations.

#### *Parents | Kidsii*

- Both stakeholders have the best interests of the child
- Parents are not looking for plush toys because of sanitation  
Kidsii has recommended a plush toy for the project
- Both want a simple toy that is intuitive but parents want toys that encourage multi sensory stimulation and more ambiguity sparking creativity.
- Neither believe in having an interface on the toy
- Parents seem not to care with a lot of character and marketing
- Both want a toy that is extremely safe

#### *Kidsii | Market*

- Technology and its implementation is a conflict, market trends lend to interface design
- Electronic toys can be used for educational purposes, such are the top three most sold electronic toys.

#### *Children | Parent*

- Children just want to have fun while parents want the child to learn through play
- Children are drawn to marketing schemes whereas parents don't care about what looks cute or not
- Parents care for the longevity of the product and children don't want a toy that will bore them quickly

To better understand the market two approaches were taken. Internal and external research was conducted. Kids II products and competitor products were organized into the four design criteria (physical and cognitive development, ingenuity, aesthetics), and a SWOT analysis was compiled.

A SWOT analysis is in itself two part, evaluating both Kids II and its competitors in four categories, Strengths of the company, Weaknesses of the Company, Opportunities from those weaknesses and Threats from those strengths.

	Strengths	Weakness	Opportunity	Threats
<b>Tiny Love</b> Israel	<ul style="list-style-type: none"> <li>•2 in 1: stacking/cause and effect</li> <li>•On/Off switch for certain effects</li> <li>•Combination plush and plastic</li> <li>•Adaptability to multiple applications</li> <li>•Color differentiation</li> </ul>	<ul style="list-style-type: none"> <li>•Multi surface/material sanitation</li> </ul>	<ul style="list-style-type: none"> <li>•Removable materials: <ul style="list-style-type: none"> <li>•detach - machine wash or</li> <li>•detach - dishwasher safe</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>•Multi sensory stimulation</li> </ul>
<b>Small World</b> California	<ul style="list-style-type: none"> <li>•Super soft</li> <li>•Parent child interaction</li> <li>•Association with sound and object</li> <li>•Multi theme</li> <li>•Tactile stimulation</li> </ul>	<ul style="list-style-type: none"> <li>•Short attention keeper</li> <li>•Company branding of colors</li> <li>•Design language recognition</li> </ul>	<ul style="list-style-type: none"> <li>•Multi sensory stimulation</li> <li>•Cross theme/ function family</li> <li>•Multi texture</li> <li>•Strong design language</li> </ul>	<ul style="list-style-type: none"> <li>•Connection between parent and child</li> </ul>
<b>Kids ii</b> Atlanta	<ul style="list-style-type: none"> <li>•Brand language</li> <li>•Social Media</li> <li>•Developmental Toys</li> <li>•Design driven industry leader</li> </ul>	<ul style="list-style-type: none"> <li>•Trending technologies</li> <li>•Interface design</li> <li>•Multi texture</li> </ul>	<ul style="list-style-type: none"> <li>•Smart integrated technology</li> <li>•Long lived enjoyment</li> <li>•Toys specifically for children with developmental constraints</li> <li>•More free from development</li> </ul>	<ul style="list-style-type: none"> <li>•Increased digital gaming</li> </ul>
<b>Market Trends</b> 2011-2012	<ul style="list-style-type: none"> <li>•Incorporation of digital interfaces</li> <li>•US industry \$21M market share</li> </ul>	<ul style="list-style-type: none"> <li>•Increased digital gaming into toys</li> <li>•Growth in virtual shopping and mobile purchases</li> <li>•Average toy pricing in US \$8.00</li> <li>•Electronics toys perceived as costly</li> </ul>	<ul style="list-style-type: none"> <li>•App's toys &amp; tablets new buzz</li> <li>•Inc</li> <li>•Pre-school electronic learning rose by 43%</li> </ul>	<ul style="list-style-type: none"> <li>•Online trends closing of brick and mortar stores</li> <li>•1 in every UK kid aged 2-6 received a tablet for Christmas.</li> <li>•2% decline in US market share from previous year</li> </ul>

## Competitor Analysis



## Electronic Toy Market Findings

Toy Industry Association, Inc  
toyassociation.org

### Unaided perceptions of electronic toys reveal a strong association to video gaming

- products consider to be electronic toys: video gaming devices, both portable and console systems, topped the list
- gaming products in general, from video games to computer games, appear to have a strong association to the electronic toys category

### The top element associated with electronic toys is their usage of power sources

- eighty-six percent of consumers see electronic toys as requiring batteries or some other power source
- strong percentages of consumers also describe electronic toys as interactive (71%) and having a microprocessor or computer chip (69%)

### Books are still popular purchases for children, surpassing electronic toys at nearly a 2:1 ratio

- the top three types of entertainment or educational products that consumers have purchased for younger children in the past 12 months are books (51%), movies (49%) and traditional toys (46%). Twenty-seven percent have purchased electronic toys.

### Consumer electronics are popular purchases for younger children, especially video gaming devices

- fifty-nine percent of those who have purchased items for younger children in the past year bought some type consumer electronics product for them

### Radio-controlled toys are the most purchased electronic toy

- half of electronic toy purchasers chose some type of radio controlled toy such as vehicles, robots or figures

### Electronic toys aren't just for entertainment. Three of the five most purchased types of electronic toys are educational in nature

- Forty-eight percent of electronic toy purchasers have purchased electronic learning systems such as the Leapster Learning System, 36% have purchased electronic learning aids, and 36% have purchased electronic books for children in the past 12 months

### Education tops entertainment in positive perceptions of electronic toys

### Electronic toys are perceived as costly

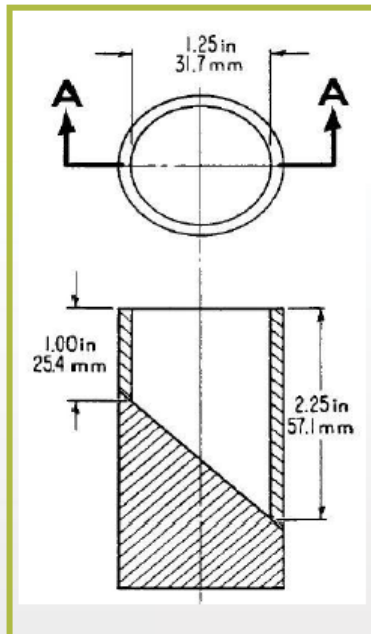
### Electronic toy recipients are more likely to be boys (58% vs 42%)

## Conclusions drawn from market criteria.

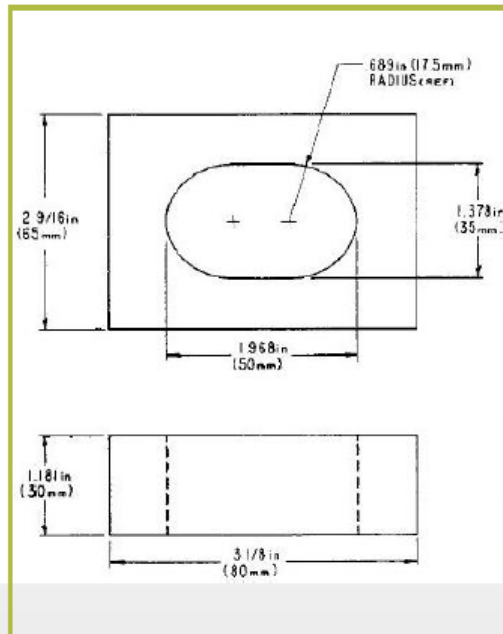
Competitors: Multi sensory, tactile stimulation and parent child interactions, online shopping trends and incorporation of digital interfaces, however limited considerations to sanitation, attention keeping, branding and consistent design language.

Human factors across all relevant physiological, perceptual and psychological dimensions that help to define or constrain the problem space and functional criteria parameters that define the operational conditions, behavioral dimensions, health and safety, usability and functional characteristics or aspirations for the toy. As outlined by Kids II, product safety include impaction hazards which could lead to airway obstruction. Small parts choking hazards. Entrapment of the head which can lead to strangulation/ Laceration hazards from sharp edges, sharp points, pinching and crushing. Ingestion hazards which can cause necrosis of tissues. Chemical issues which can lead to burns, toxicity and the effects of chronic exposure. A set of safety gauges has been supplied by Kids II which has been divided into three categories; small parts, rattle test and supplemental test.

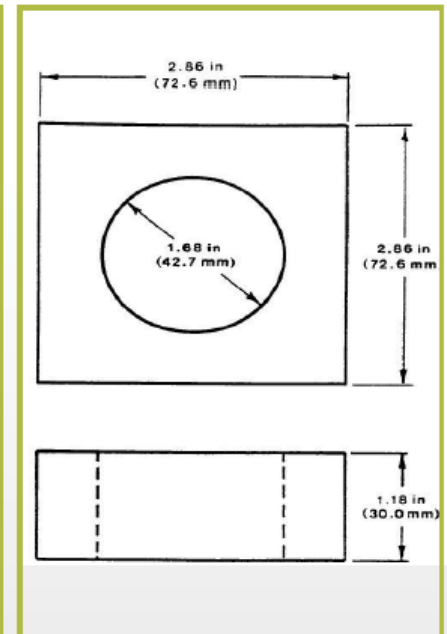
Small Parts









Rattle Test



Supplemental Test

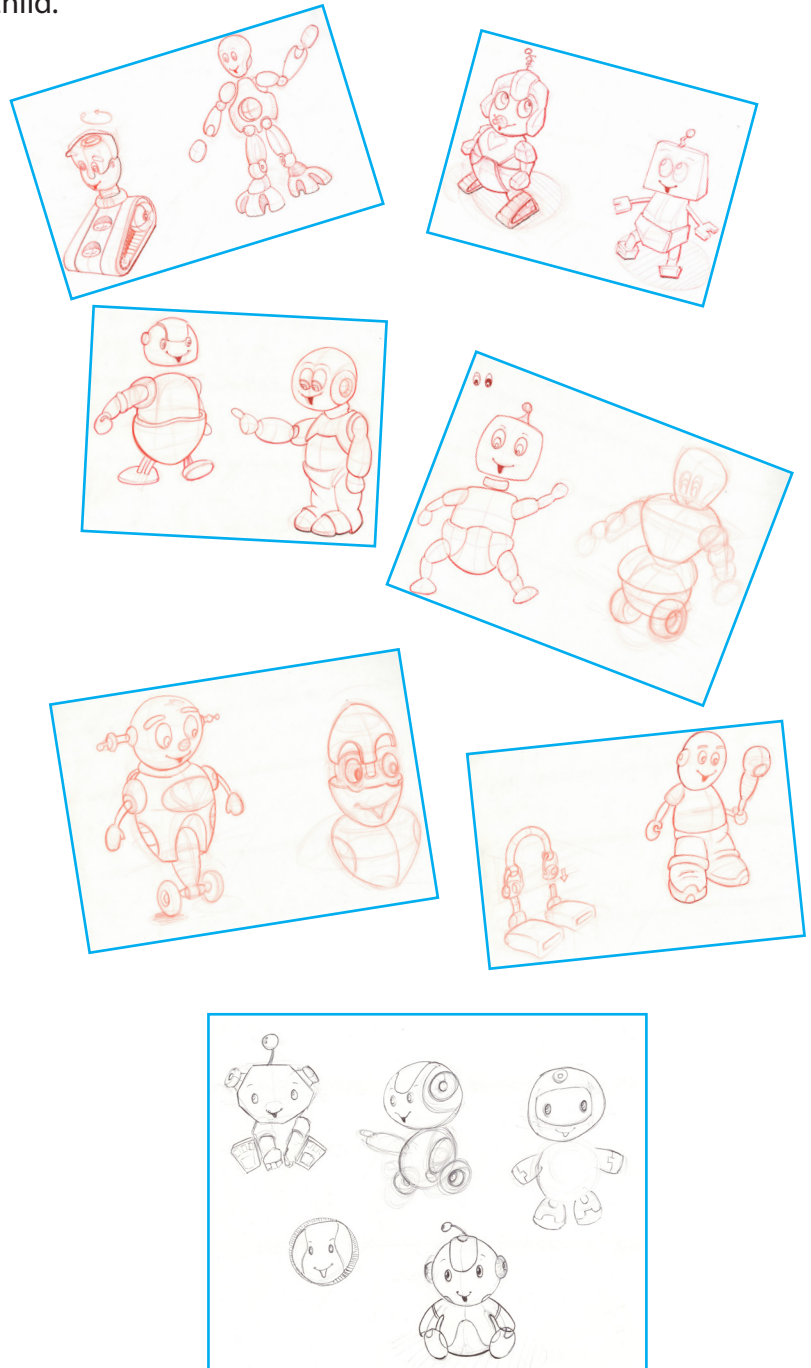


Unfortunately baby toys are often recalled by the Consumer Product Safety Commission for containing lead and other toxic materials. Even baby toys that are generally considered safe by consumer agencies often contain materials such as PVC, phthalates or BPA. While it may be almost impossible to eliminate all potentially hazardous toys from your baby's environment, every little bit helps. Wooden or cotton toys are a good alternative

	 PETE Polyethylene Terephthalate (PET)	 HDPE High Density Polyethylene	 V Polyvinyl Chloride (PVC)	 LDPE Low Density Polyethylene	 PP Polypropylene	 PS Polystyrene (PS)
Clarity	Clear	Hazy Translucent	Clear	Translucent	Translucent	Clear
Moisture Barrier (MTVR)	Good	Excellent	Good	Very Good	Excellent	Poor
Oxygen Barrier	Good	Poor	Good	Poor	Poor	Poor
Distortion Temperature	155°F	160°F	150°F	110°F	200°F	170°F
Rigidity	High	Moderate	High	Low	Moderate	High
Stress Crack Resistance	Excellent	Fair	Excellent	Good	Excellent	Fair
Cold Resistance	Good	Excellent	Fair	Excellent	Poor	Poor
Impact Resistance	Good	Excellent	Good	Excellent	Fair	Poor
Alcohol Resistance	Good	Good	Excellent	Good	Good	Fair
Alkalis Resistance	Poor	Good	Excellent	Good	Good	Fair
Solvent Resistance	Good	Poor	Good	Poor	Poor	Poor
Oil Resistance	Fair	Good	Good	Good	Good	Poor
Acid Resistance	Fair	Good	Good	Good	Good	Fair



Kids II has supplied their 2012 toy characters for use on the project, for the sake of design innovation and a holistic approach to conceptualization a new character has been developed to complement the existing line, the new character is a baby robot, however the design implementation should not be confined to the form of the new robot and should be applicable to other characters. Based on the survey conducted parents tend to prefer more rigid toys over the plush toys with fewer sounds that don't contribute to the development of that child.



Toddlers for the most part are full of energy and have an overwhelmingly intense desire to move around and explore their environment. It has become exceedingly important to provide the toddler with a variety of interesting opportunities for exercising and developing their muscles.

### *Outdoor Exploration*

The outdoors offers an ideal setting for getting exercise and fresh air while your toddler explores the environment. It is important to let the toddler make his/her own decisions during the exploration.

### *Indoor Pillow Play*

A pile of pillows can provide a safe environment for the child to tumble roll, crawl and climb on.

### *Scenario Exploration*

Give the child a scenario (astronaut, mermaid etc) and have them pretend to be immersed in the scenario performing tasks that exercise and tire them.

### *Push and Pull*

Cars and trucks often with sound effects built in make them great fun and help your toddler move around and exercise all his muscles in his make-believe world.

### *Ball Games*

Balls of various sizes to be thrown, caught and also fetched. This will develop hand/eye coordination and agility.

Infants were once thought of as passive and unknowing. It was commonly believed that until they mastered language, young children were incapable of thinking or forming complex ideas. Today, we know otherwise. From the very start, young children are aware of their surroundings and interested in exploring them. Scientists from several fields have shown that from the first weeks of life, babies are active learners. They are busy gathering and organizing knowledge about their world. These milestones highlight young children's progress in developing perceptual and thinking skills. - Kinderstart.org

### *0- 3 Months*

Newborns begin right away to use and integrate their senses to explore their world. Most infants can see clearly within 13 inches  
 Focus on and follow moving objects, including human faces  
 See all colors and distinguish hue and brightness  
 Distinguish the pitch and volume of sound  
 Respond with facial expressions to  
 Prefer high contrast items and geometric shapes

### *3- 6 Months*

Babies perceptual abilities improve rapidly. At this age, they are able to recognize faces  
 Differentiate between different people based on the way they look, sound, or feel  
 React to and imitate the facial expressions of others  
 Respond to familiar sounds

### *6 - 9 Months*

Distinguish between inanimate and animate objects, and understand that inanimate objects must be propelled into motion by an external force  
 Distinguish among pictures that show different numbers of items  
 Use the relative size of objects as a clue to how close or how far away they are

## 9 Months - 1 Year

Understand that an object still exists even when it's not in view

Respond to simple directions and questions with gestures, sounds, and perhaps words

Imitate gestures and actions

Experiment purposefully with the physical properties of objects, for example, by seeing how objects fit into a container or what happens if the container is turned over

Enjoy looking at picture books

## 1 - 2 Years

Children at this age spend much of their time intently observing and imitating the actions of adults. Most can:

Imitate adults' actions and language

Understand words and commands and respond appropriately

Begin to match similar objects

Recognize and identify familiar objects in storybooks with adult assistance

Distinguish between "you" and "me"

[www.pbs.org/wholechild/abc/cognitive.html](http://www.pbs.org/wholechild/abc/cognitive.html)

Going into the conceptual phase it will be important to take these milestones into consideration, be it in targeting a specific age group or designing a toy that will grow with the child and compliment these milestones.

*ingenuity* is a criteria regarding new technologies, current research based on children, interactive, new materials and child safety.

Toy makers and retailers are filling shelves with new tech devices for children ages 3 and up, and sometimes even down. They say they are catering to junior consumers who want to emulate their parents and are not satisfied with fake gadgets. - NY Times

Children "are role-playing what they see in society," - Reyne Rice, a toy trends specialist for the Toy Industry Association

#### *Why helicopter parenting can make kids crash and burn*

It's OK to let our kids fall over, fight their own battles and learn about the consequences of their actions, say parenting experts.

"What parents are beginning to realize is that it's good to let your kids fall. OK, they might bump their heads, but they'll survive and they will have learnt something," says parenting coordinator of the Northern Sydney Local Health District, -Vivienne Hughes.

"Parents understandably struggle with letting go. But helicopter parenting does not provide the best outcome for your child," - Vivienne Hughes

"The problem with helicopter parenting is that it is not teaching kids the skills to be able to cope when their parents aren't around. Kids need skills for when times get tough."

"The more you enable kids to take sensible risks, you are helping them with resilience and confidence building."

Follow your children's lead when it comes to play, interests, activities and talents. "Don't impose your own interests on your child."

Provide just enough scaffolding for your children to achieve things by themselves. "Self esteem comes from doing things for themselves."

Encourage your child to learn from mistakes, rather than blame. Encourage quick thinking and learning consequences.

Based on the design brief the price range for the product is between \$9.99 and \$29.99, this based on the survey conducted is a highly feasible. The margin for the product is between 30-40%, electronics may be implemented in products above \$7.00. Estimated units produced is between 14,000 and 35,000.

## Contacts & Resources

### *Kids II*

Charlie Mitchell	charliem@kidsii.com
Brad Reese	brad.reese@kidsii.com

### *Parents*

Gina Thao  
Belinda Sullaphan  
Ayaz Merchant  
Shazna Choudry  
Raja Schaar  
Claudia Rebola

"Baby Toys." Smart Mommy Healthy Baby : Safe, Non-Toxic. N.p., n.d. Web. 11 Oct. 2012. <<http://smartmommyhealthybaby.com/healthy-baby/baby-toys.php>>.

"Cognitive Disorders in Children." Cognitive Disorders in Children. N.p., n.d. Web. 11 Oct. 2012. <<http://www.learningrx.com/cognitive-disorders-in-children-faq.htm>>.

"Create Your Own Free Online Survey Over 1 Million Users!" Create a Free Online Survey, Web Poll or Quiz. 1 Million+ Users! Nivay's Survey for Toddlers, n.d. Web. 11 Oct. 2012. <<http://freeonlinesurveys.com/>>.

"Developmental Milestones: 12 Months." HealthyChildren.org. N.p., n.d. Web. 11 Oct. 2012. <<http://www.healthychildren.org/English/ages-stages/baby/Pages/Developmental-Milestones-12-Months.aspx?nfstatus=401>>.

N.p., n.d. Web. 11 Oct. 2012. <<http://www.toyassociation.org/>>.

"University of Michigan Health System." Developmental Milestones: Your Child:. N.p., n.d. Web. 11 Oct. 2012. <<http://www.med.umich.edu/yourchild/topics/devmile.htm>>.