

# WONDER FACTORY

## Team 2-A:

- Shamlan Alshammari -----→ Client Contact
- Bader Alshammari -----→ Project Manager
- Mohammad Alsaïdi ---→ Web Developer / Document Manager
- Mohammad Alotaibi -----→ Budget Holder

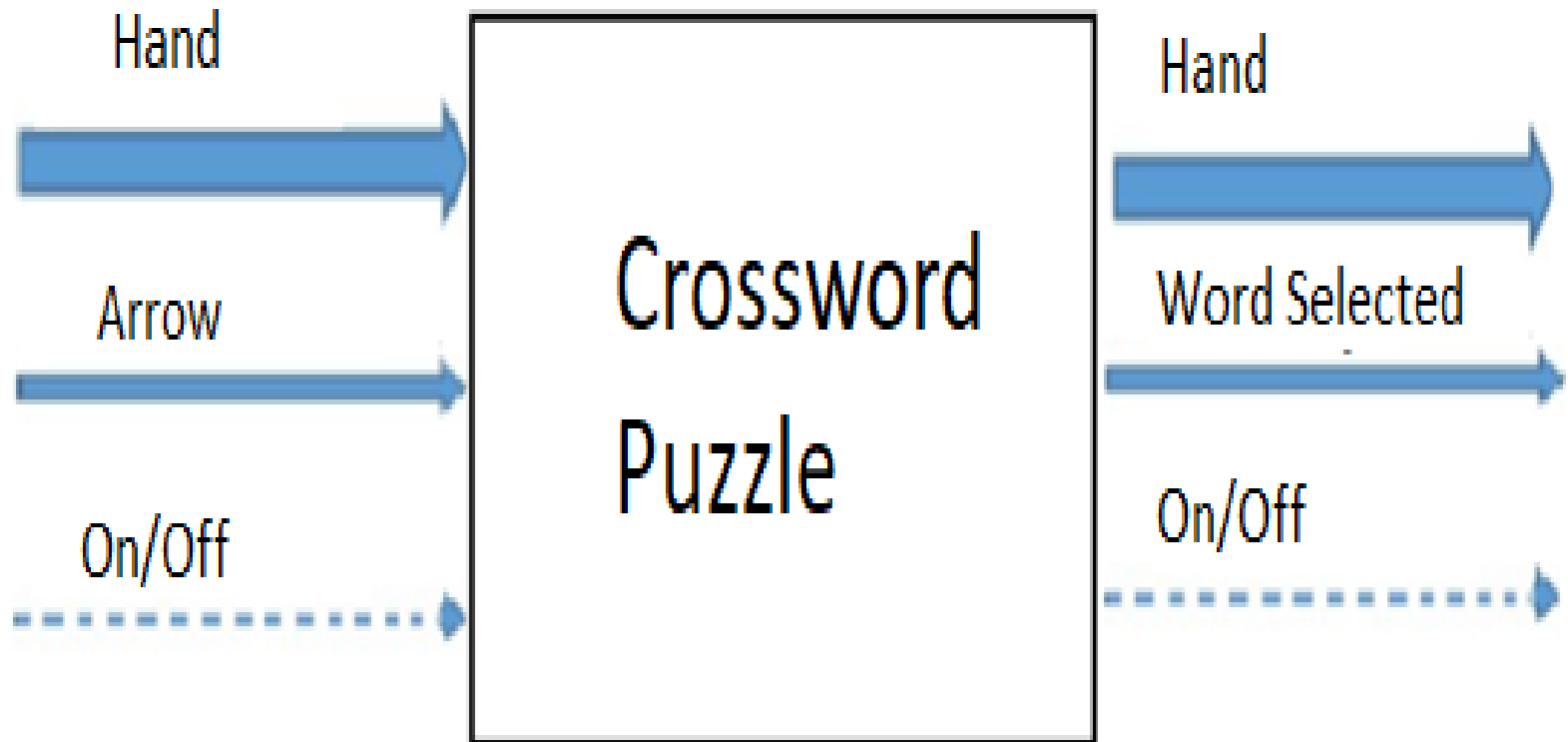
# PROJECT DESCRIPTION

- We are building Wonder Factory
- Wonder Factory is a place to display items for children's
- Items which follows the concept under STEAM are:
  - **Science**
  - **Technology**
  - **Engineering**
  - **Art**
  - **Mathematics**

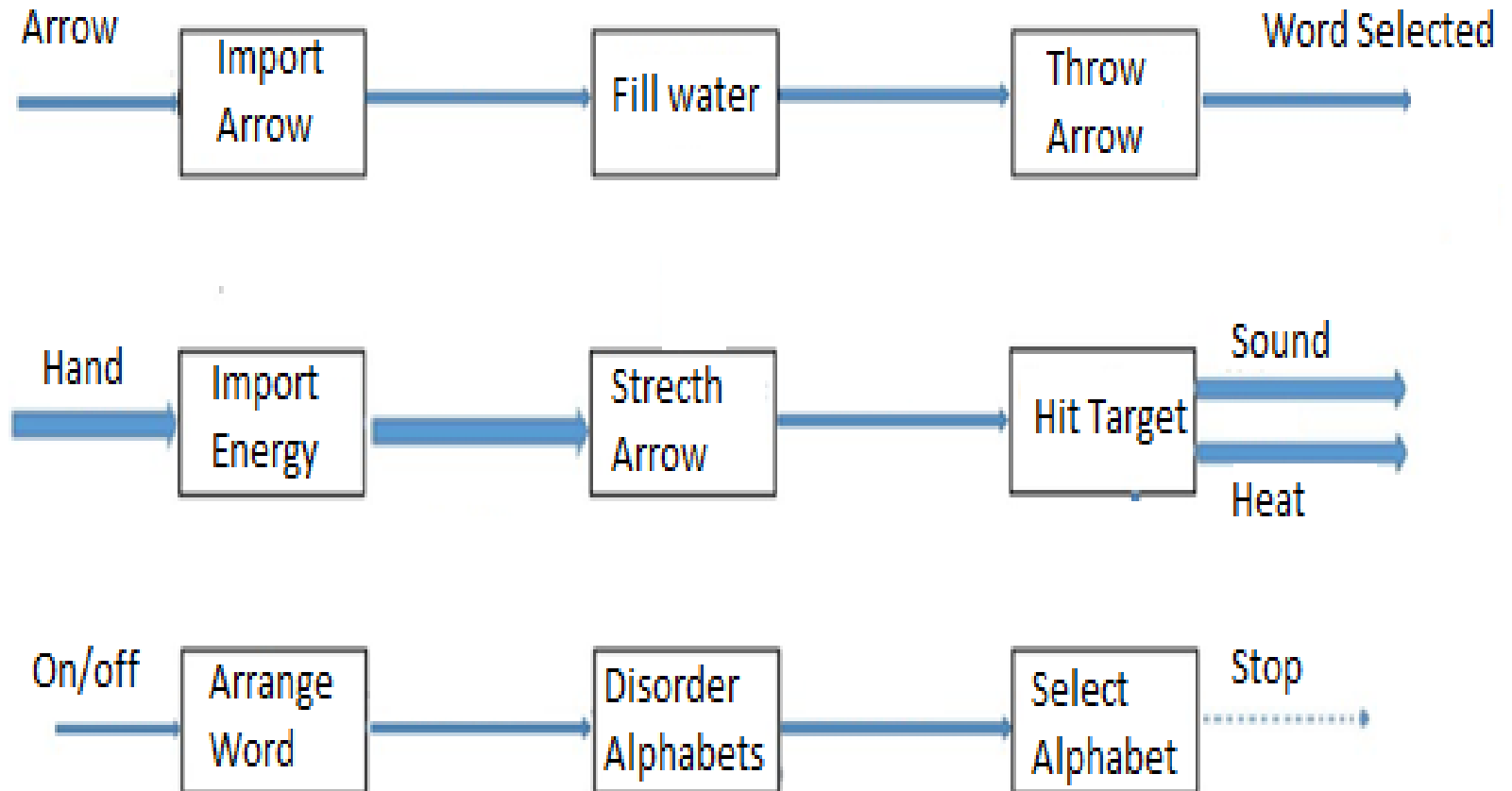
# CLIENT DETAILS

- Wonder Factory is actually a project led by
  - **Jackee Alston.**
  - **Steve Alston.**
- Wonder Factory has already created in Flagstaff where children comes for educational and entertaining products
- Project is sponsoring by these two clients
- It is important to know about sponsors because they are actually running the Wonder Factory so they will better judge our project and we have to make the project up to their mark.

# BLACK BOX MODEL



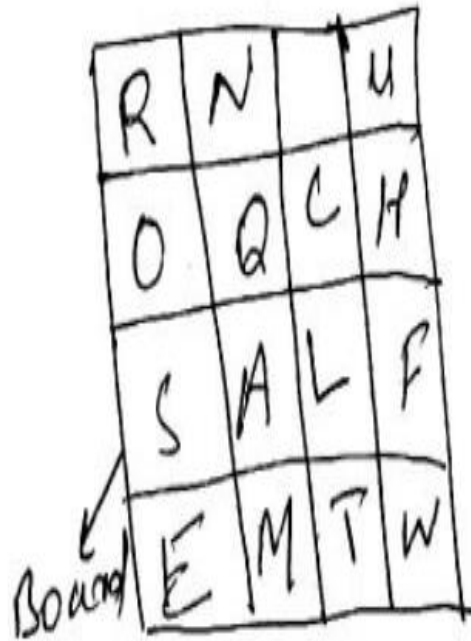
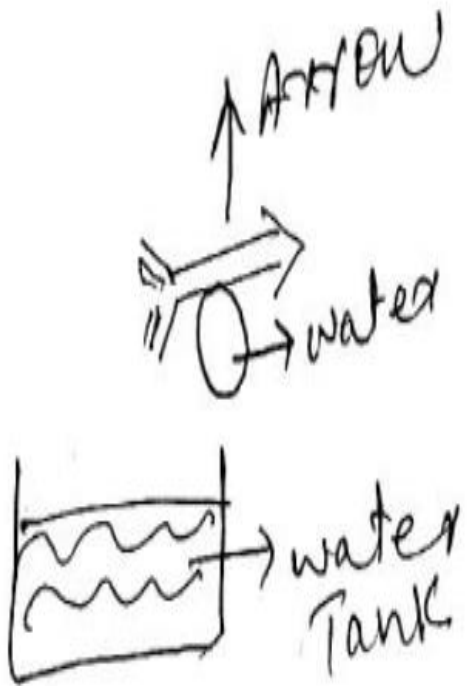
# FUNCTIONAL MODEL



# DESIGNS CONSIDERED

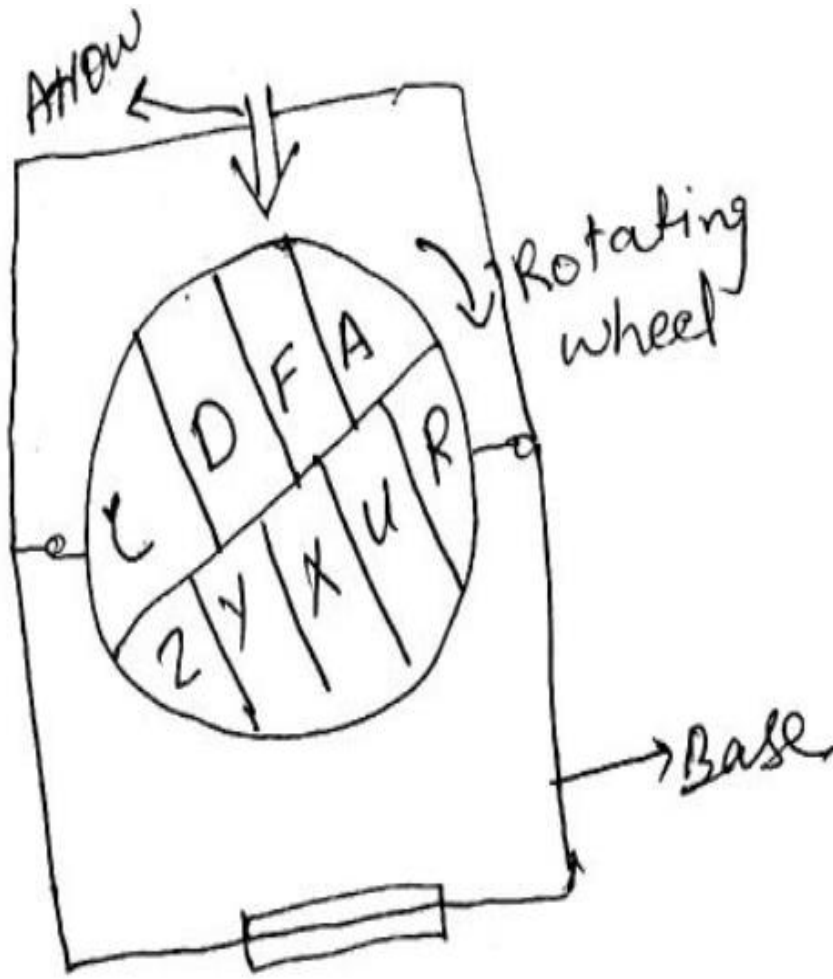
- Water Hitting Arrow
- Rotating Wheel
- Mobile Board

# WATER HITTING ARROW



Advantages	Disadvantages
Easy to use	Difficult to handle by kids
Moveable	

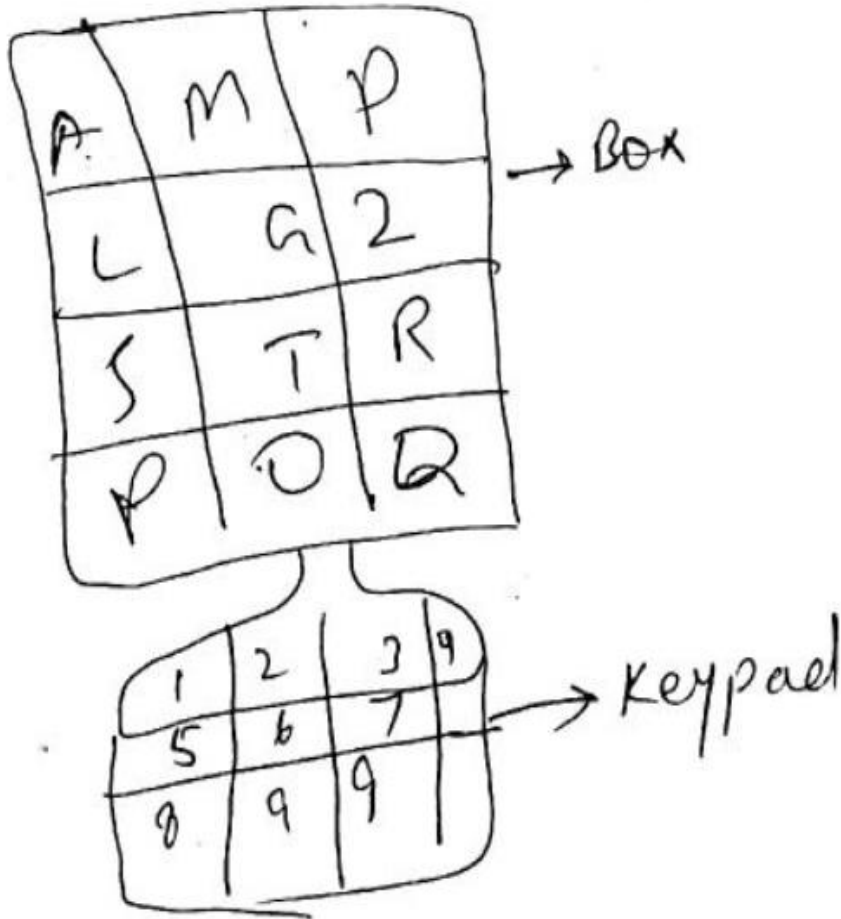
# ROTATING WHEEL



Advantages	Disadvantages
Easy to use	Difficult to rotate the wheel
Portable	Time consuming



# MOBILE BOARD



Advantages	Disadvantages
Easy to use	Difficult to handle by kids
	Time consuming

# PUGH CHART

5 Designs for Fun Apparatus	Weightage	Ball Hitting Board	Board on Ground	Water arrow to hit	Datum Design: Rotating Wheel	Rotating Wheel	Stairs Board	Rotating Flower	Box Puzzle	Mobile Board	LED based Puzzle	Dropping Cards
Safe to Operate	7	+	-	+	D	+	+	-	-	+	+	-
Child-like wonder	6	S	-	+	D	-	-	S	+	+	+	+
Tactile, Auditory and Visual	5	-	-	+	D	+	-	-	S	+	-	-
Portable	4	+	-	+	D	+	+	S	-	-	-	S
Project themselves into the role	3	-	-	+	D	S	+	+	-	-	S	S
Feel Smart	2	+	+	+	D	-	-	-	S	S	-	+
Multiple Visitors	1	-	+	+	D	+	-	-	-	S	S	-
Pluses		3	2	7	-	4	3	1	1	3	2	2
Minus		3	5	0	-	2	4	4	4	2	3	3

# DECISION MATRIX

	Safe to Operate	Child-like wonder	Tactile, Auditory and Visual	Portable	Project themselves into the role	Feel Smart	Multiple Visitors	Total
Weightage	7	6	5	4	3	2	1	
Water hitting arrow	$5 \times 7 = 35$	$6 \times 6 = 36$	$2 \times 5 = 10$	$7 \times 4 = 28$	$7 \times 3 = 21$	$5 \times 2 = 10$	$5 \times 1 = 5$	145
Rotating Wheel	$4 \times 7 = 28$	$5 \times 6 = 30$	$3 \times 5 = 15$	$1 \times 4 = 4$	$2 \times 3 = 6$	$4 \times 2 = 8$	$2 \times 1 = 2$	93
Mobile Board	$3 \times 7 = 21$	$2 \times 6 = 12$	$1 \times 5 = 5$	$2 \times 4 = 8$	$2 \times 3 = 6$	$2 \times 2 = 4$	$4 \times 1 = 2$	58

# WORK DIVISION

- Work has divided between all the members equally
  - **Generating Concept Variants – All team Members**
  - **Finalized Design – All team Members**
  - **Progress Report – All team Members**
  - **BOM – Bader Alshammari & Mohammad Alsaïdi**
  - **Budget and Gantt Chart – Mohammad Alotaibi & Shamlan Alshammari**
  - **Final Report – All team Members**
  - **Final Presentation – All team Members**

# BUDGET

- Our Budget in this project goes within \$500 minimum and \$2,000 maximum
- We anticipate our project will cover the following items:
  - **Materials (40%)**
  - **Manufacturing (40%)**
  - **Prototyping (20%)**

# SCHEDULE

- Key Tasks:
- Presentations
- Peer Evaluations
- Website Checks
- Reports
- Prototype
- CAD DRAWING & BOM

# GANTT CHART

Tasks	Due Date	Assigned Personal	Status
Project Team charter	1/24/18	ALL	[Green Bar]
presentation 1	2/6/18	ALL	
website check 1	2/21/18	ALL	
peer evaluation 1	2/21/18	ALL	
meet the TA	2/27/18	ALL	
first report	3/3/18	ALL	
presentation 2	3/6/18	ALL	
analytic analysis team	3/16/18	ALL	
website check 2	3/28/18	ALL	
individual analytical analysis	4/6/18	ALL	
peer evaluation 2	4/11/18	ALL	
final report	4/27/18	ALL	
final CAD & BOM	5/2/18	ALL	
website check 3	5/2/18	ALL	
final prototype summary	5/4/18	ALL	
peer evaluation 3	5/8/18	ALL	
		waiting to be done	[Blue Bar]
		done	[Green Bar]



**THANK YOU FOR YOUR ATTENTION!**

**Any Questions?**