

STEM 2 I1 Requirements (ADR)

Team Members:	Robert, Magnus, Charles
Description of Need:	Watering Can

#	Requirement Type	Requirement Statement	Level	Initial Prototype	Plastic Design	Plastic Design 2
1	Cost	Design costs less than \$25 per watering can.*	1	Y	M	Y
2	Documentation	The design process is documented in a logbook and final documentation will be on an Instructables page.	1	Y	Y	Y
3	Functional	Design does not leak.	1	Y	Y	Y
4	Functional	Design is able to hold a third gallon of water.	1	Y	Y	Y
5	Functional	Design is able to pour water.	1	Y	Y	Y
6	Physical	Design is durable and able to withstand a 1 meter drop	1	Y	Y	Y
7	Physical	Design weighs five pounds or less with water.	1	Y	M	Y
8	User	User must be able to carry five pounds.	1	Y	Y	Y
9	Aesthetic	Design is made of a few materials, less than 10.	2	Y	Y	Y
10	Aesthetic	Design is professionally formed using plastic.	2	N	Y	Y
11	Functional	Design stands up on its own or with a compatible stand.	2	Y	Y	Y
12	Physical	Design can be easily replicated by looking at the design.	2	Y	Y	Y
13	Physical	Design is comfortable to carry as there are at least 3 square inches for holding.	2	M	Y	Y
14	Physical	The functionality is easy to understand.	2	N	Y	Y
15	Aesthetic	Design has one color.	3	Y	Y	Y
16	Physical	Design is able to carry hot water.	3	Y	M	Y
17	Physical	Design is able to shower the water across a large area of thirty six inches squared.	3	N	N	N

* The cost of each watering can reduces as more watering cans are made as a lot is invested in the manufacturing process.

Y/N/M Meanings
Y: The design meets the established requirements
N: The design does not meet the requirements
M: It is unclear at this point whether or not the design will meet an expectation