Ball Lift and Transport

Situation

Authentic transportation systems have been development to transport people and goods in all kinds of situations in remote and unique places.

Problem

Design and build a method of getting a ball from a known location up a wall and across a water trap without touching the ball with your hands.

Specifications

* You must not touch the ball with your hands.
* Your device must independently raise the ball without you lifting it
* The ball must be transported across the water trap on its own without your influence
* The ball must land safely into the designated drop zone without rolling or bouncing out.

Materials

* 2 straws
* 2 lengths of thin wood
* 45 cm of string
* 1 clothes pin
* 10 cm of wire
* Cardboard
* 60 cm of duct tape

Research

* What are some non-traditional modes of transportation?
* What mechanisms can be used to lift objects?

Ideas

* Each person mast create at least 2 sketches that demonstrates their idea
* Create one idea as a group and develop it into a final sketch and have it approved to receive your materials

Life Cycle Analysis

* Consider the materials chosen for this design, where they came from and where they will go at the end of their useful life. Fill in the Life Cycle Plan.

Design

* Construct your solution to the problem

Evaluation

1. Did your design solve the problem? Why or why not?
2. What modifications did you make?
3. What are some positive features of your design?
4. How could the design be improved or innovated?
5. How did you contribute to the group?
6. How did your partners contribute to the group?