

# Universal Design: Juice Boxes



## Concept:

How can the standard 250 ml juice box can be more easily opened and enjoyed by everyone?

## Objectives:

To demonstrate that even the most commonplace things can be designed for everyone to use.

To address the problems (listed to the right) in compliance with the Universal Design Principles.

## Summary:

In this re-design of the standard 250 ml juice box, a non-spill straw is prepackaged into the carton. The head of the straw has a flexible valve that only allows the beverage to flow out of the carton.

(© 2011 The Last Straw) A plastic tab that seals the straw can be flipped open with one-hand for easy access. A trilingual juice box package was re-designed to show a working layout.

## Current Problems:

### **Equitable Use: Noncompliant**

Acute motor skills are needed to take the straw from its wrapping and insert the straw into a 6mm diameter wide opening, making the product exclusive to those with unimpaired eyesight and motor skills.

### **Flexibility in Use: Noncompliant**

The beverage can only be accessed by the method described above.

### **Tolerance for error: Noncompliant**

see Equitable Use

### **Perceptible Information: Improvable**

The flavour of the drink can be emphasized by using a more efficient layout.

### **Size and Space: Improvable**

Kids often squeeze the wider face of a rectangular juice box. This suggests the package could use a more ideal shape.



# Structural Changes



## Box Shape

Same original liquid capacity  
50x45x115mm  
Discourages kids from  
squeezing juice out  
Easier to hold with one hand



## In-box Straw

Avoids plastic wrapping  
Less hassle for all users

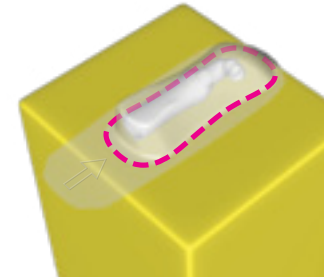


## The Last Straw©

Flexible valve on the end  
prevents inadvertent spillage  
Beverage only exits the box when  
the straw is sipped on  
<http://thelaststrawllc.com>

## Pull-off Tab

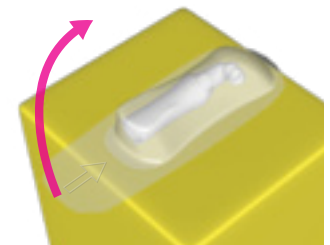
Keeps the straw sterile  
Sealed at the pink dotted-line  
Allows for flexibility in use



one-handed use:  
By positioning the thumb finger  
on the opening of the straw, the  
seal can be pulled-off  
minimal learning curve



intuitive two-handed use



Up arrow is a universal  
affordance to lift the tab  
Arrow is raised into the plastic,  
serving as a grip for the fingers



# Graphical Changes



## Packaging Label

Revised dimensions allow for  
clearer text - even with a long  
flavour name and information in  
three languages  
All text is equal or larger than 8pt  
sans-serif

## Raised English

Allows for beverage flavour to be  
identified (see first panel ren-  
dering), and instructions to be  
understood

