

EGG MAILER

Design a packaging that will keep a delicate object safe in the mail.

DESIGN PROCESS

RESEARCH

Eggs are an extremely delicate object, their insides are protected with only a thin shell. When compressed vertically they tend to be resistant, but the slightest impact to their sides will automatically crack them. Therefore, uncontrolled movement of the egg within a container could result in breakage.

COTEL: Correos y Telégrafos Nacionales is the postal service in Panama. They have a strict policy describing allowed packaging; in general terms, they will not allow boxes with ornaments or images of any kind, only the address of the recipient should be seen. Courier delivery services tend to be more cautious when handling a package. For this exercise, design will be based on the delivery through postal service to ensure that the packaging will endure the most extreme conditions.

PROBLEM

Send a package containing a delicate object without breaking it through a careless postal service.

In transit, the packaging might tumble, be stacked under heavy items, dropped, and stored in any orientation.

Design of the packaging should consider holding the egg still, muffle impacts received, be usable, understandable, and give the user a pleasurable experience. It also has to be stackable to comply with COTEL regulations.

Materials used should consider life cycle of package. Restrictions: use only a combination of paper, cardboard or foam. Only paper and cardboard are chosen for the design due to easy recycling, in Panama foam can be challenging for the user to recycle.

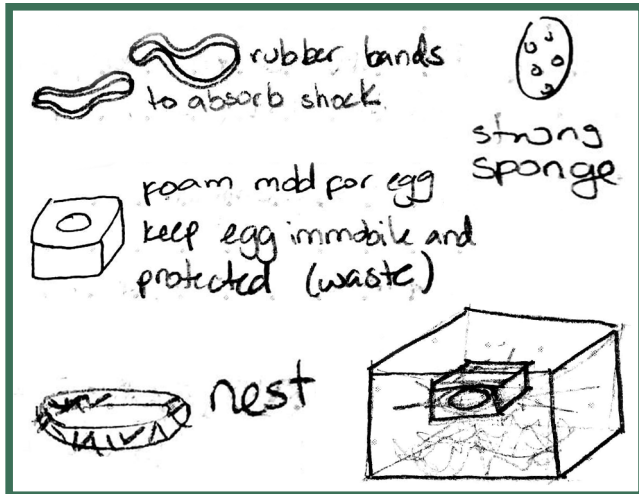
USER

The user will be any individual looking to mail a raw egg. Packaging will be available as a template online to be manufactured at home or bought unfolded with instructions of assembly. Materials used can be found in most households making it easy to make.

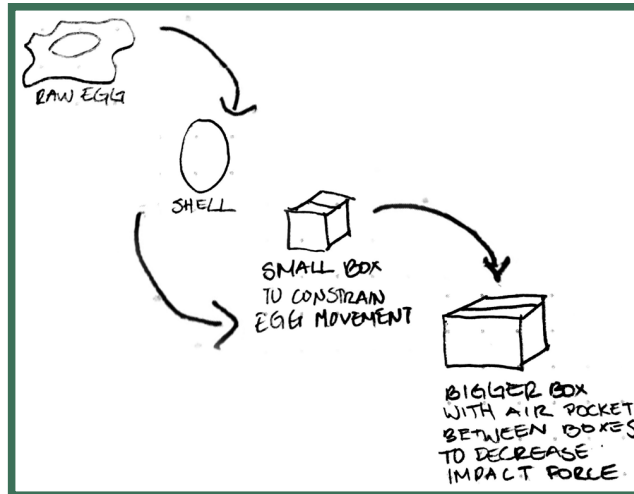
The packaging should be easy to assemble, lightweight, compact, portable, and deliver the object intact.

The recipient should be able to open the package intuitively by reading its signifiers, affordances and constraints whilst having a pleasurable experience with all their senses.

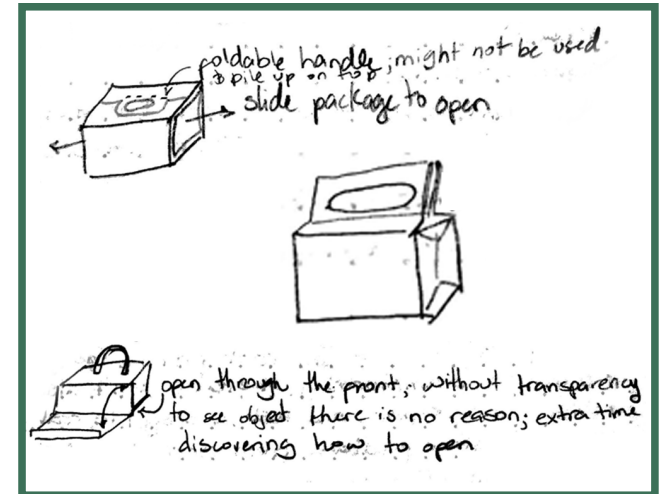
IDEATION



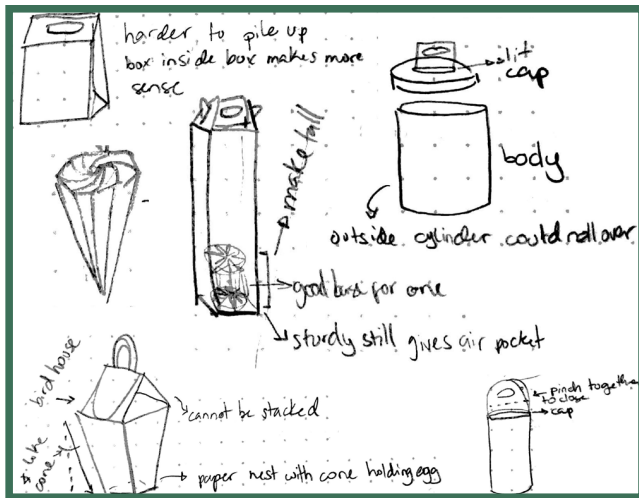
Hold egg in place with rubber bands, foam, nest, sponge, box (some discarded due to material).



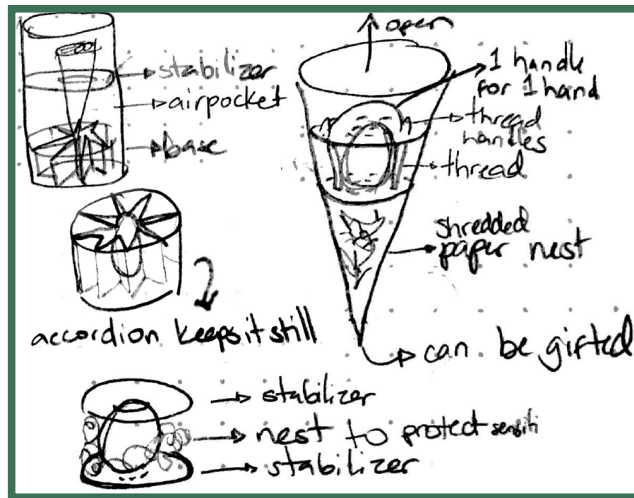
Use a container inside a container inside a container to secure object being mailed.



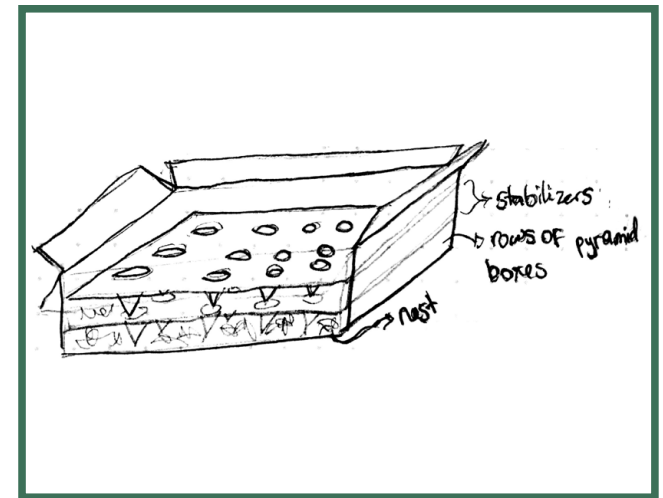
Handles constrain possible orientation of the package and ways to carry.



Initial designs complicate stacking and force specific orientation in order to safeguard it.



Stabilizers and fillers will keep elements inside from moving while creating a cushion.



Possibility to adapt design to larger scale mailing.

PROTOTYPES

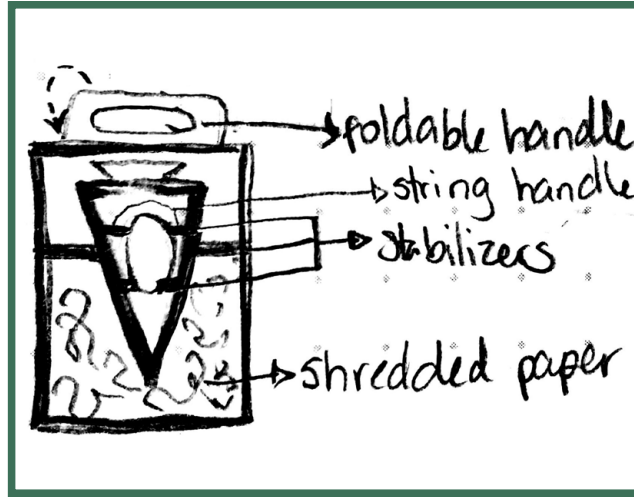
PACKAGE DESIGN

A system of container containing a container will be used to ensure layers of protection that will decrease possibility of breakage during transit.

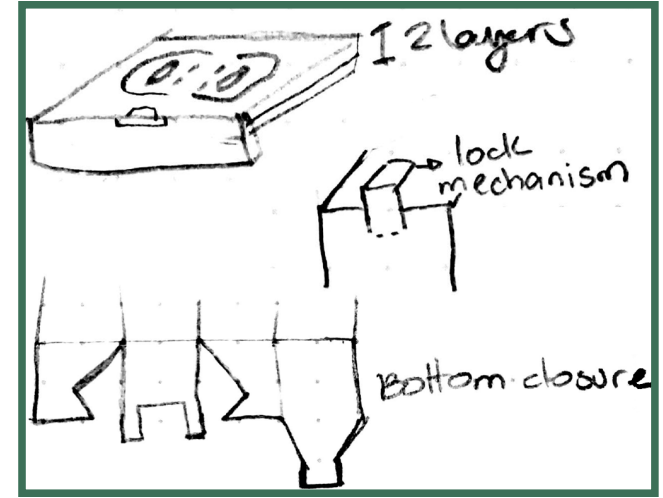
Outside box will adopt a simple design following COTEL regulations. Box's bottom panel will be a snap lock and top panel will be a tuck top secured with a lock mechanism including foldable handles for the user to carry it. Recipient's address can be written in any of the box's side panels.

Inside box adopts a pyramidal shape that reimagines a bird house. It is held in place by a stabilizer and shredded paper to mimic a bird's nest.

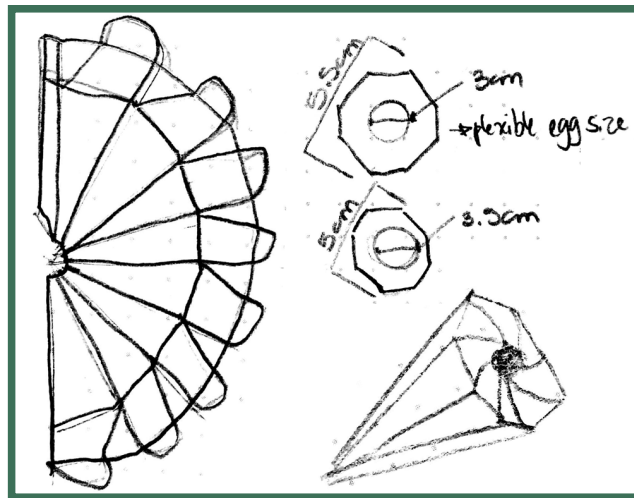
Egg is placed inside the pyramidal box and held in place by stabilizers.



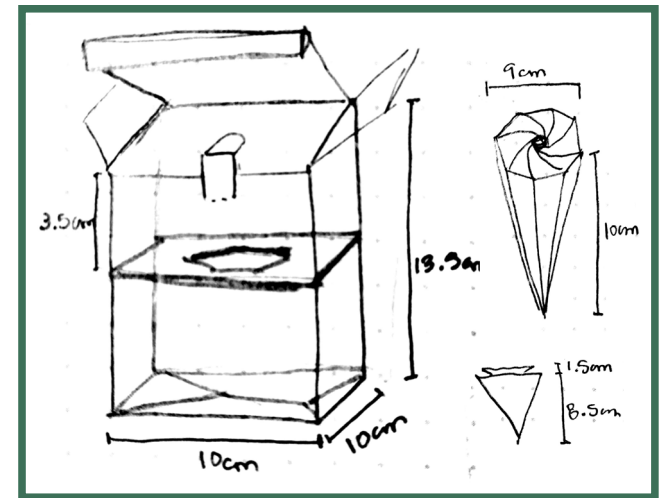
Section view of the package.



Detail of bottom and top panels of outer box.



Pyramidal box's template.



Dimensions of boxes.

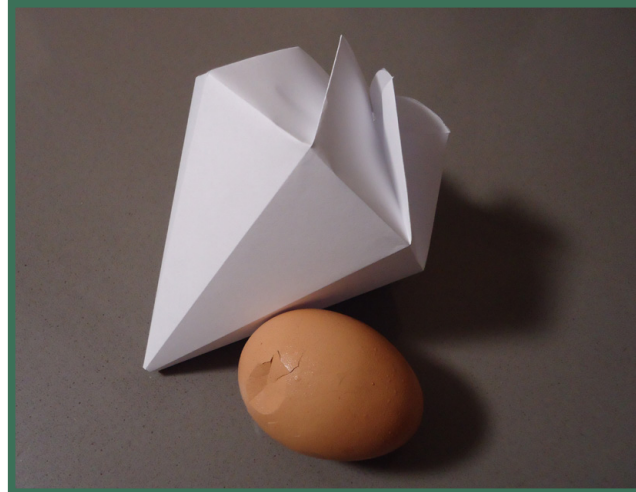
PROTOTYPES



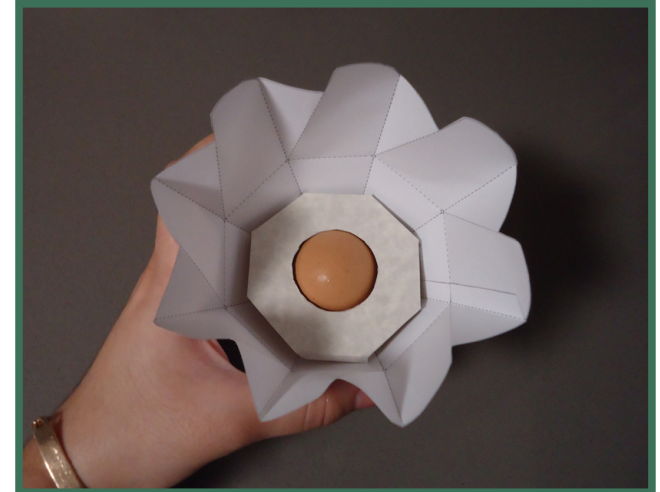
OPENING PACKAGE

1. Unlock top panel and swing the lid to open box.
2. Take out pyramidal box from outer box.
3. Open pyramidal box by pulling on either of its tabs in a rotating motion.
4. Lift the stabilizer with the help of the string handle.
5. Grab the egg and remove it from pyramidal box.

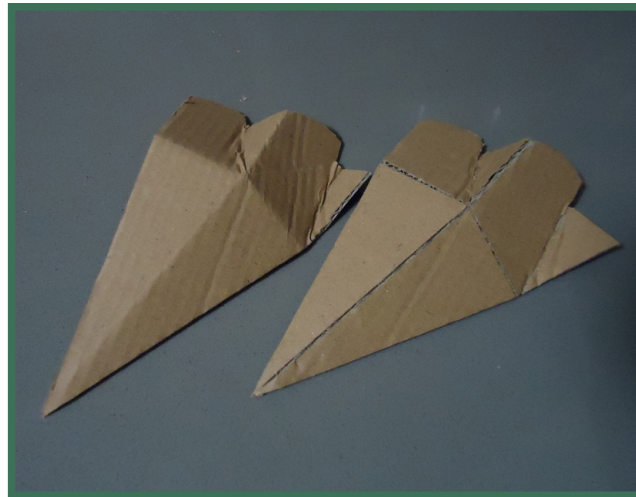
Or use pyramidal box to gift the egg



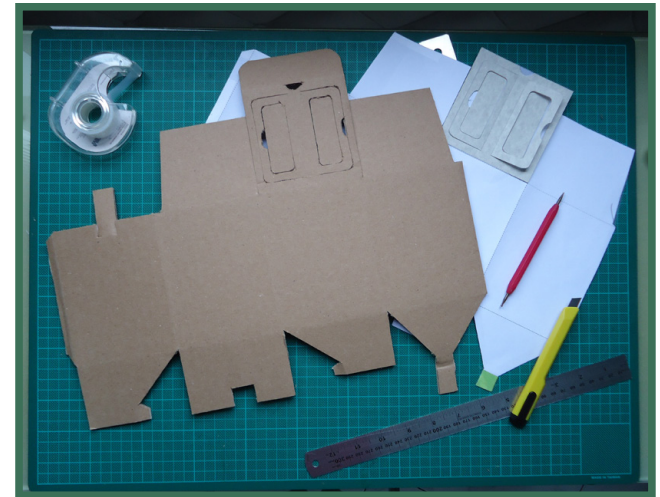
Adjustments in size had to be made between first and second prototype of pyramidal box.



Prototype of pyramidal box with stabilizers holding egg in place.



Testing if folds can be easily made in cardboard.



Manufacturing box prototypes with chosen material for package: cardboard.

FINAL PRODUCT



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Outer box with handles on the top panel folded and ready to be mailed.



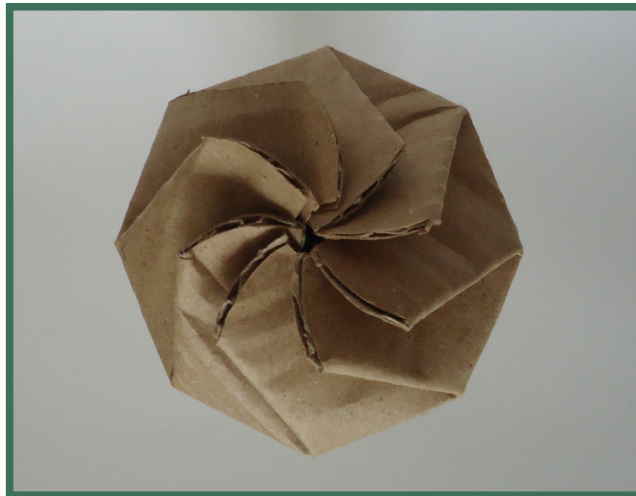
View of the outer box's bottom panel with snap lock design.



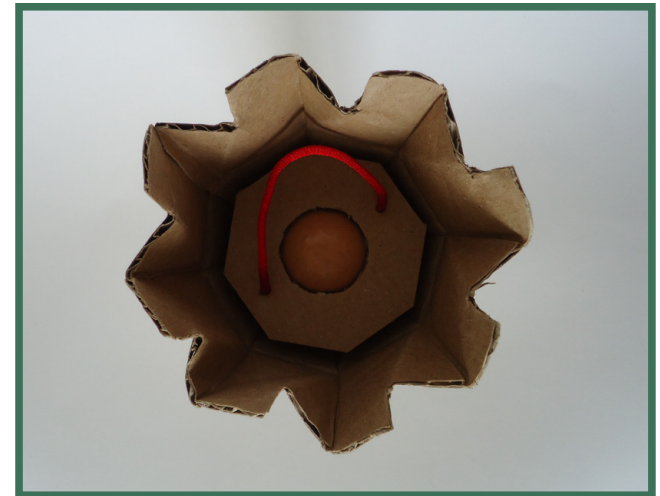
Outer box with handles on top panel unfolded.



Pyramidal box.



Top view of the pyramidal box.



Pyramidal box open. Egg and stabilizer with string handle can be seen.