



Umbrella
DESIGN



BRIEF

Looking into creating a device that utilizes the functionality of an umbrella while improving the overall experience for the user.

PRODUCTS



PRODUCT PROS

Keeps you dry

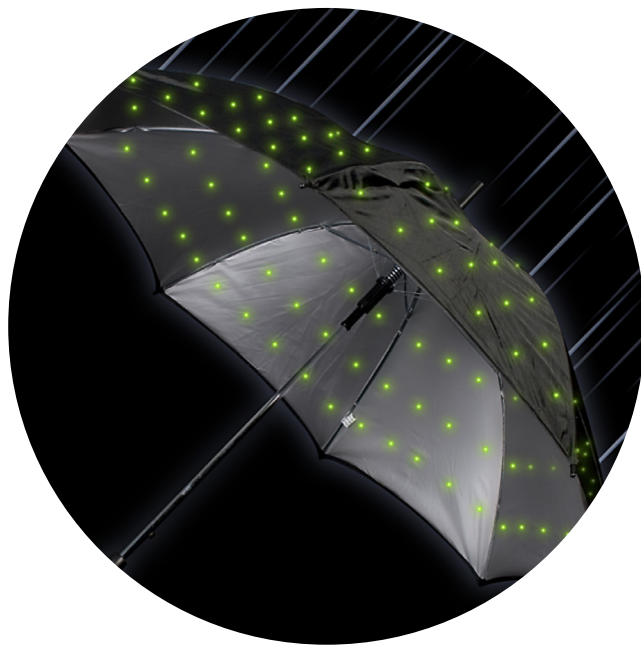
User friendly to an extent

Ergonomically appropriate

Protects against UV light

Affordable to functionality

Size availability



PRODUCT CONS

Ribs bend and break

Retains water over time

The wind blows it inside out

You get wet when you get in the car

Tip of umbrella wears down/off

Handles are not ergonomically correct

Fabric comes undone

Fabric fades

THE NEPALI UMBRELLA



Unique in that it is held on with a head strap that enables them to have their hands free while working in the rain.

They use these during the monsoon season when they plant their rice.

They are made of woven bamboo reeds with a piece of plastic sheeting sandwiched in the middle.

CONCEPTUAL PRODUCTS

CONCEPTUAL PRODUCTS

Form

Materials

Possibilities of function

Dispersion of water

Innovative

Structure



ISSUED PATENTS

PATENTS



Locking mechanisms

Materials

Processes

Telescope

Collapsible

Flaring

Grips

Similar functions

Spring Assist

SEQUENCE OF USE

SEQUENCE OF USE

Carrying through the store

Velcro not sticking

Tips of wire canopy hitting the hand

Handle not being big enough

Velcro strap dangling

When getting in the car water gets all over you as well as the interior of the car

Where does live in the car?



SEQUENCE OF USE

Button to open and close

Button to open

No button, manual

45" long, 5' in canopy diameter

6" long, 34" in canopy diameter

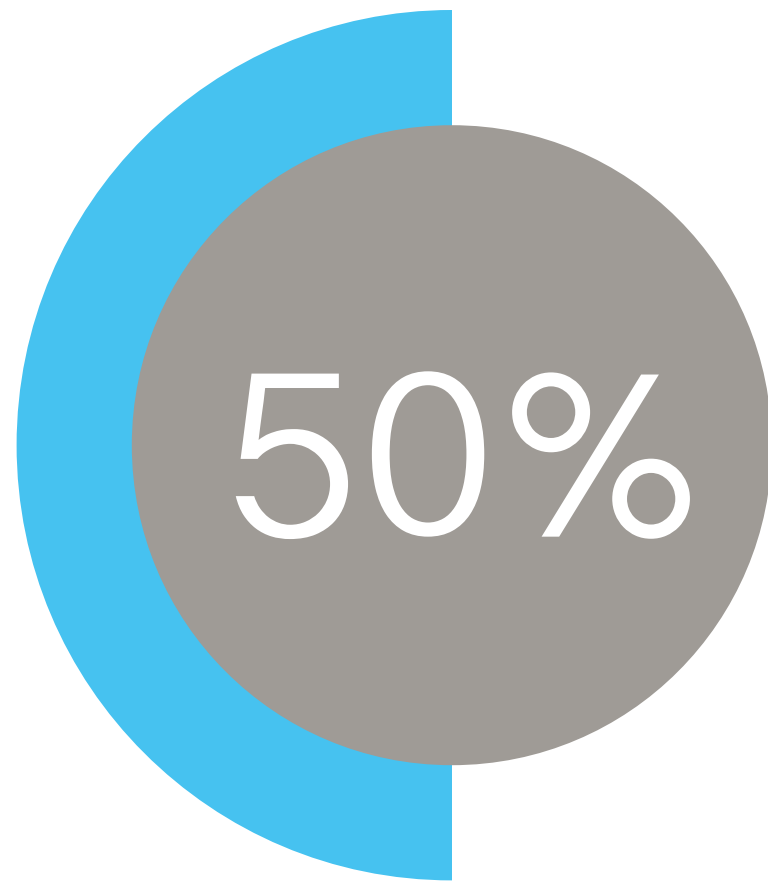
Different handles that feel different in the hand

No umbrella has a button to close all the way

All umbrellas are hard to close when getting in a car



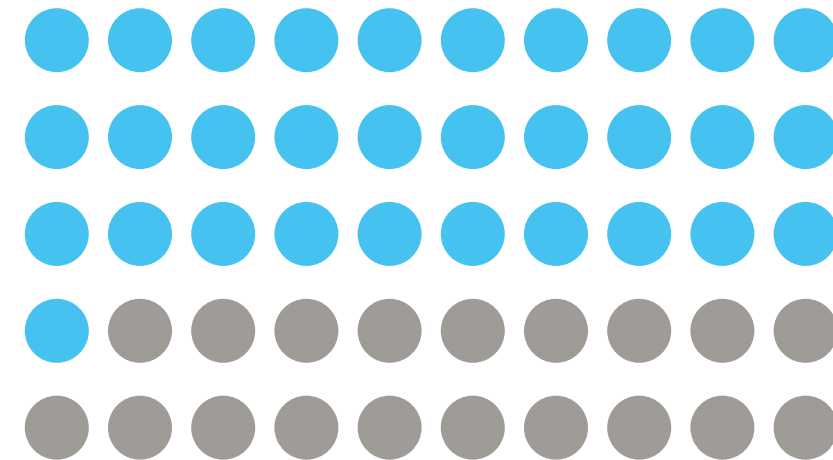
QUESTIONNAIRE



Of people like a short compact umbrella

62%

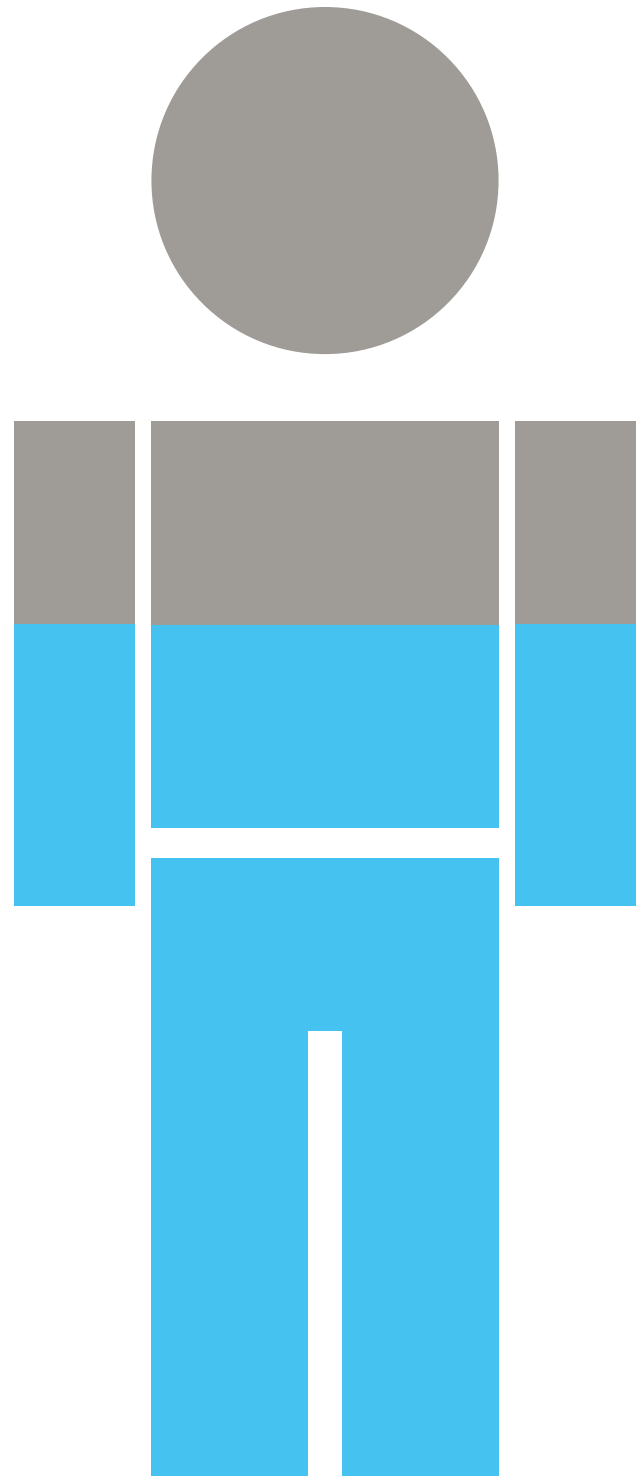
Of people prefer a two person umbrella over a one person



Some of the concerns that were found in the questionnaire concerning "the number one problem with your umbrella?"

- Carrying it around once the rain has stopped
- Wind folds it inside out
- Gets wet when getting in the car
- Velcro wears out





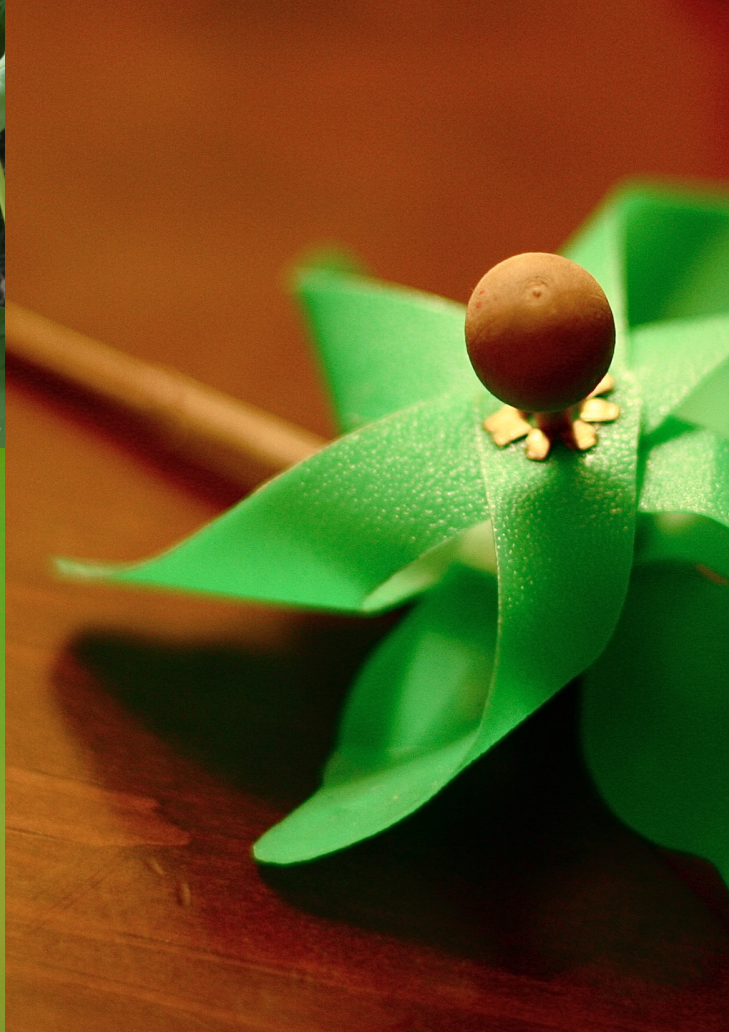
Over **HALF** of people answered the question “Where do you store your umbrella?” With “In the car”.

Other Answers

- Hung on a door knob
- Leaned up in a corner
- Book bag
- Floorboard



PICTURE BOARD

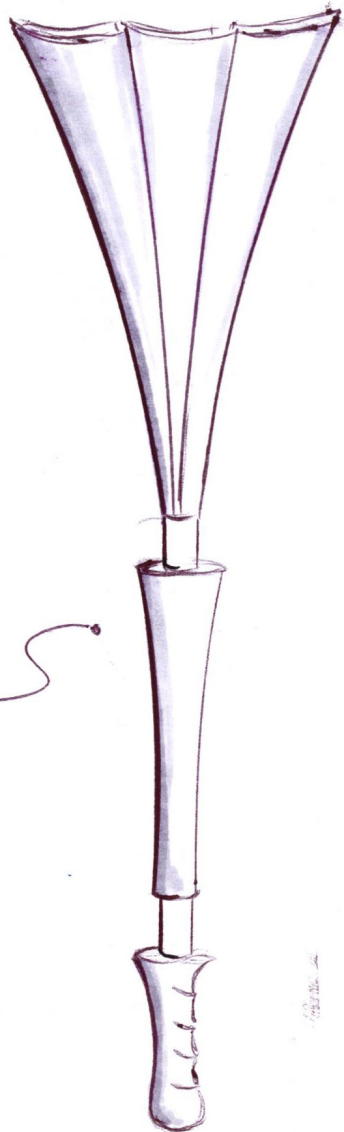


PRODUCT DIRECTION

PRODUCT DIRECTION

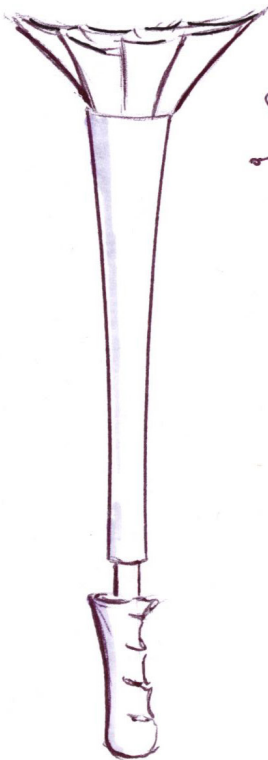
- Keep you dry
- Keep you dry while getting in the vehicle
- Storage
- Durability
- Ease of use
- Light weight
- Stability
- Sustainable
- Appropriate materials
- Mobility
- Collapsible
- Ergonomically appropriate

PRELIMINARY SKETCHES

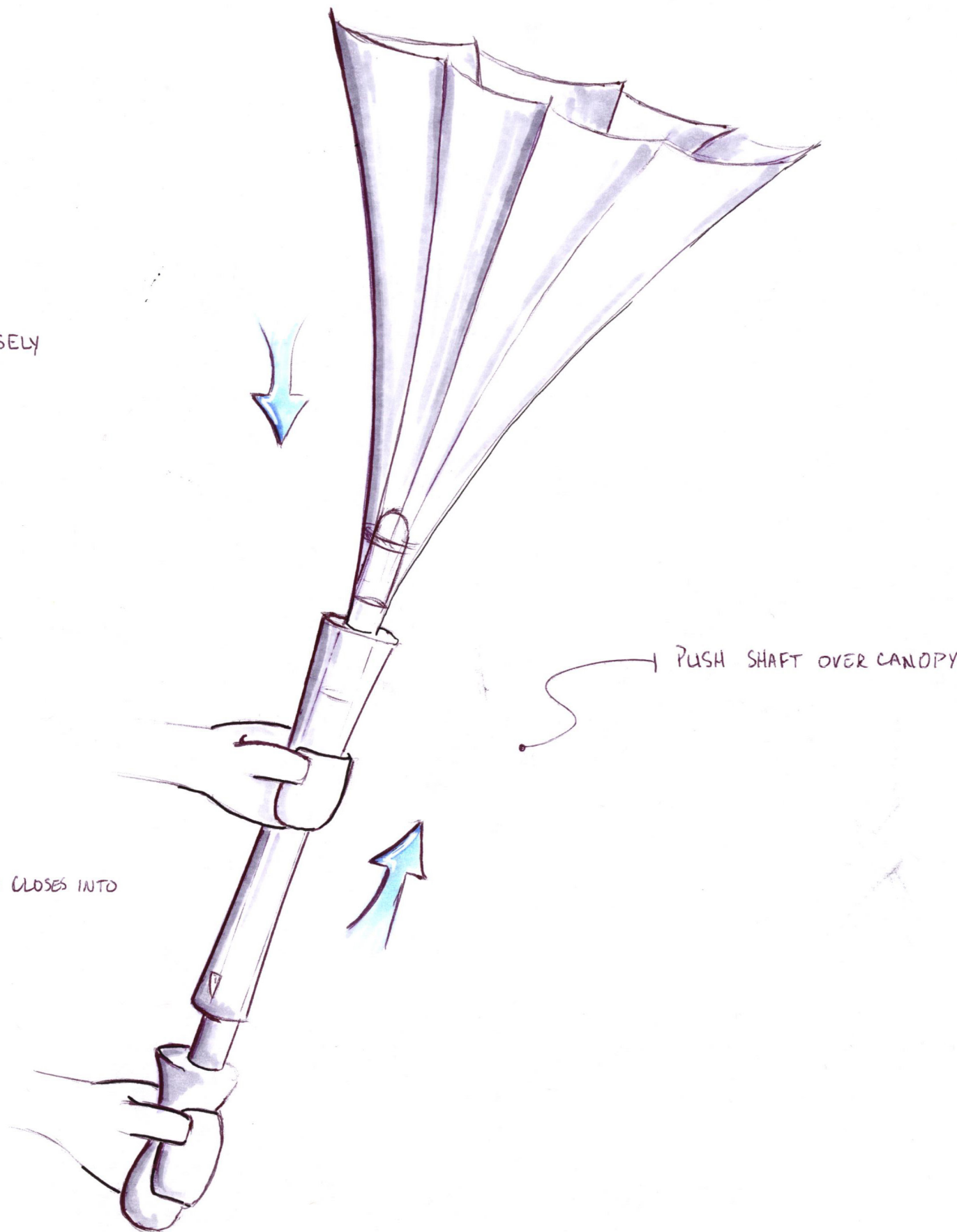


UMBRELLA CLOSES INVERSELY

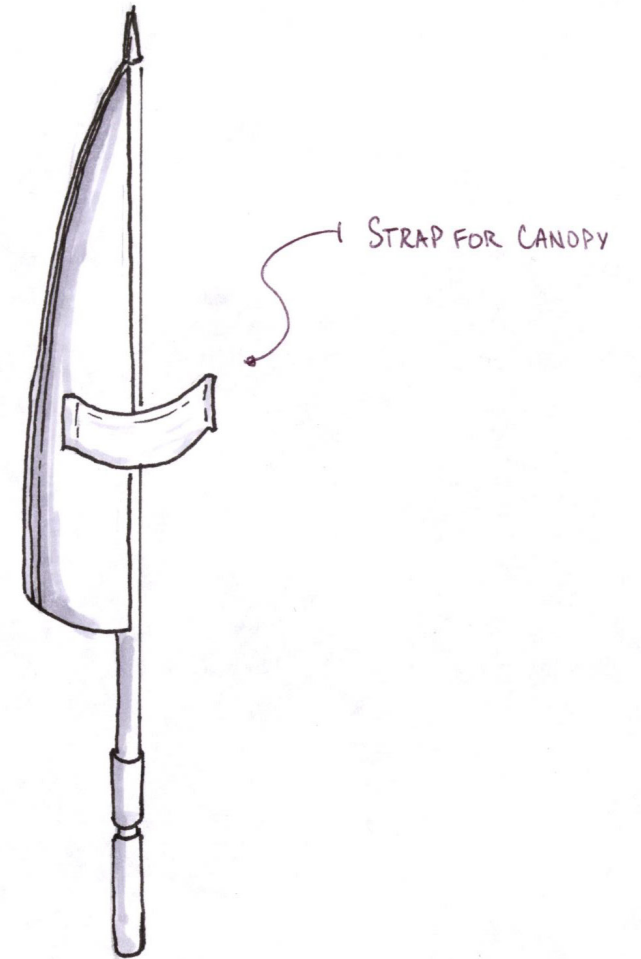
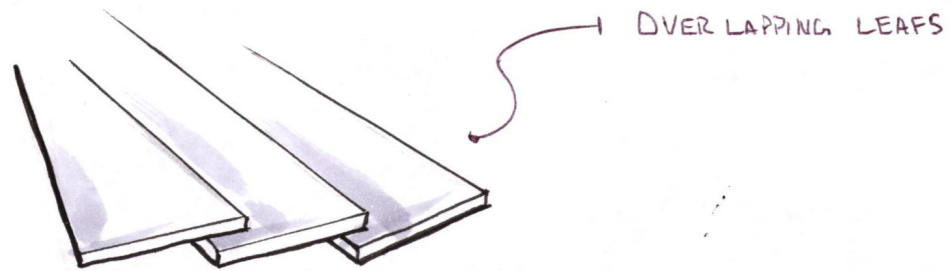
SHAFT FOR COVERING CANOPY



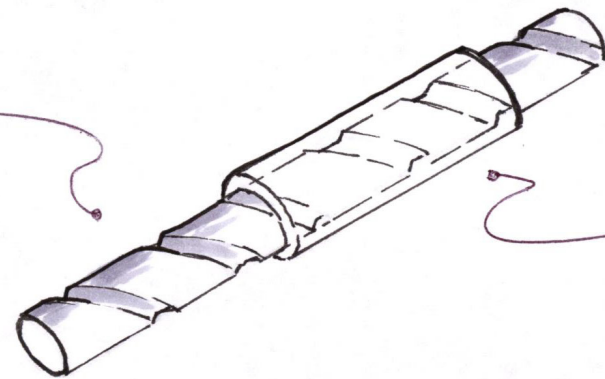
UMBRELLA CLOSES INTO SHAFT



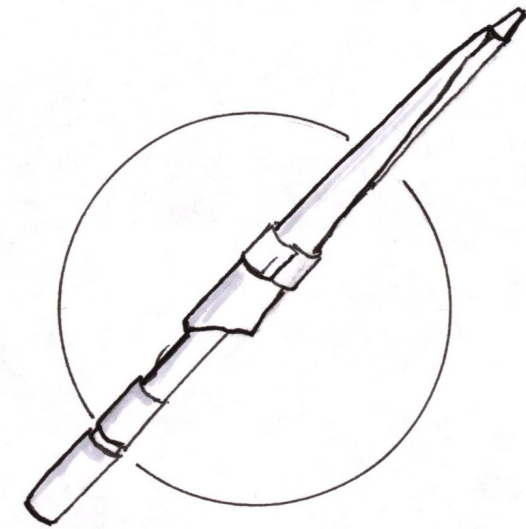
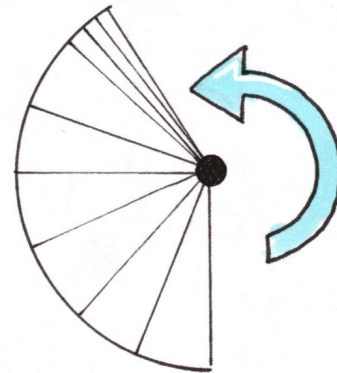
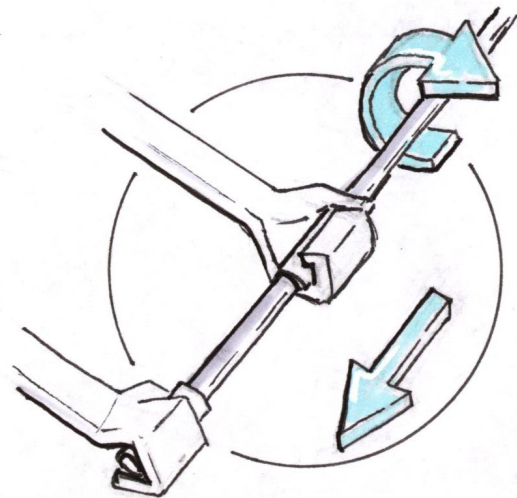
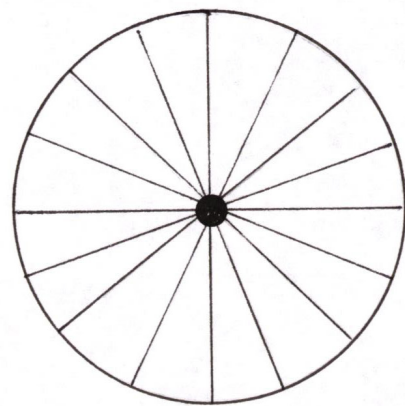
PUSH SHAFT OVER CANOPY

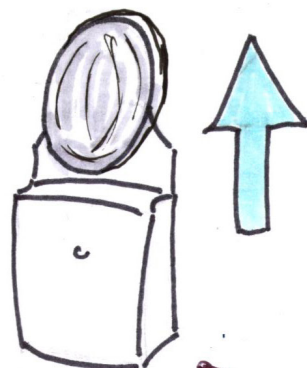
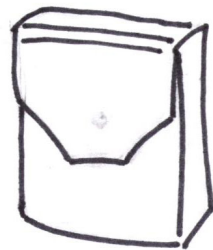


CENTER CORK-SCREW SHAFT

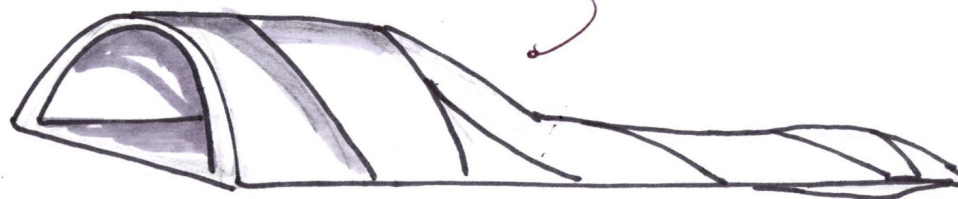


RUNNER TO OPEN CANOPY



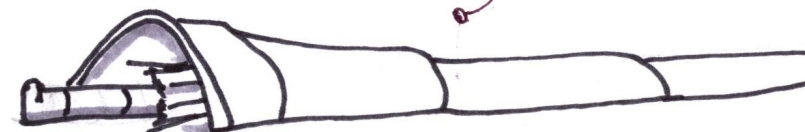
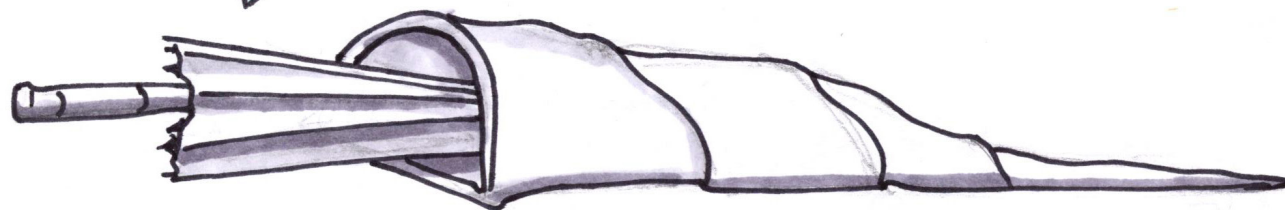
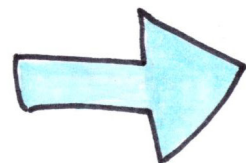


SPRINGING

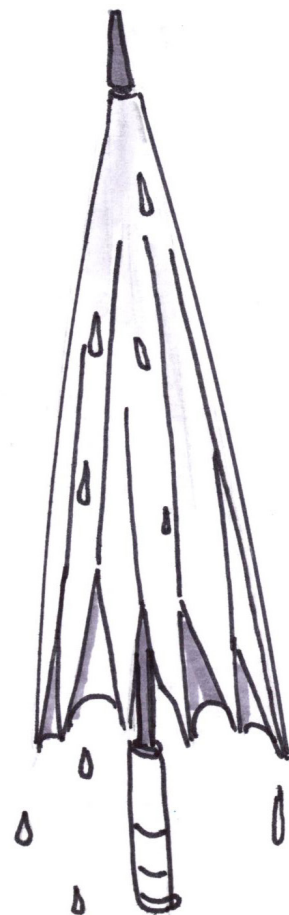


PROTECTIVE SLEEVE

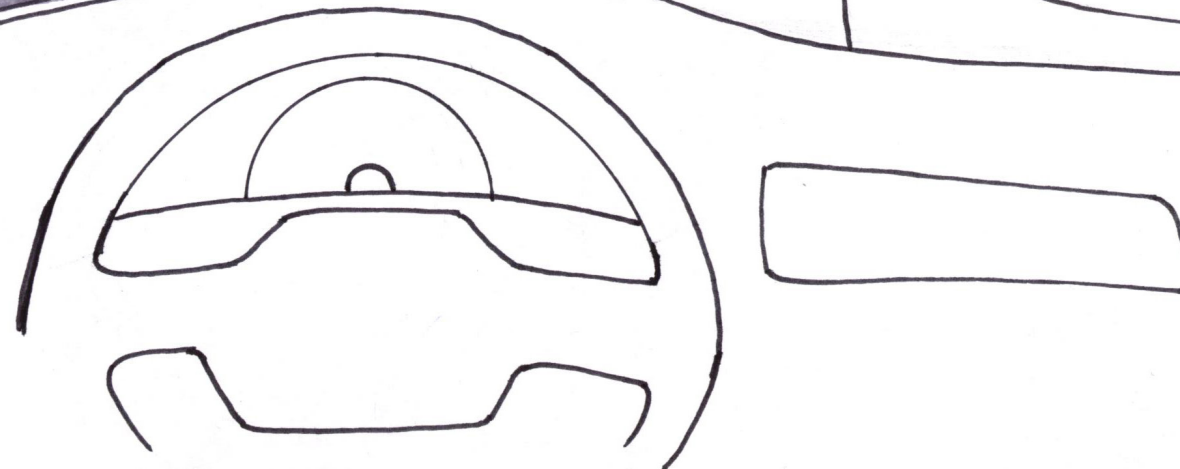
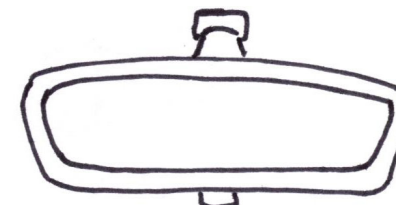
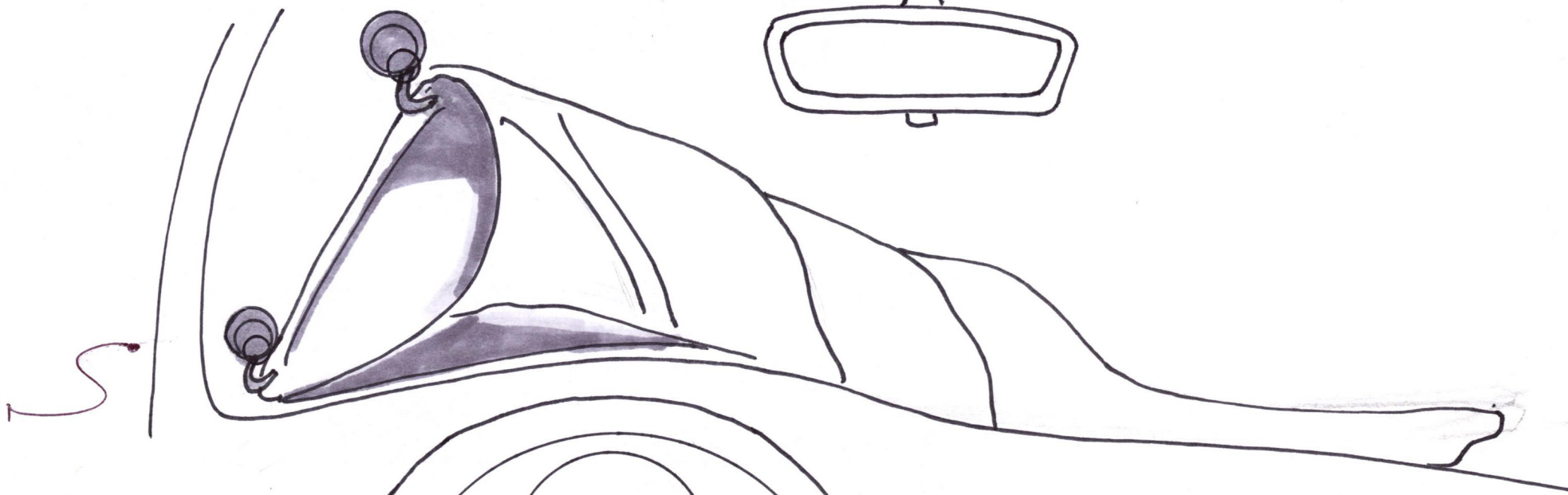
COLLAPSES INTO CARRYING CASE

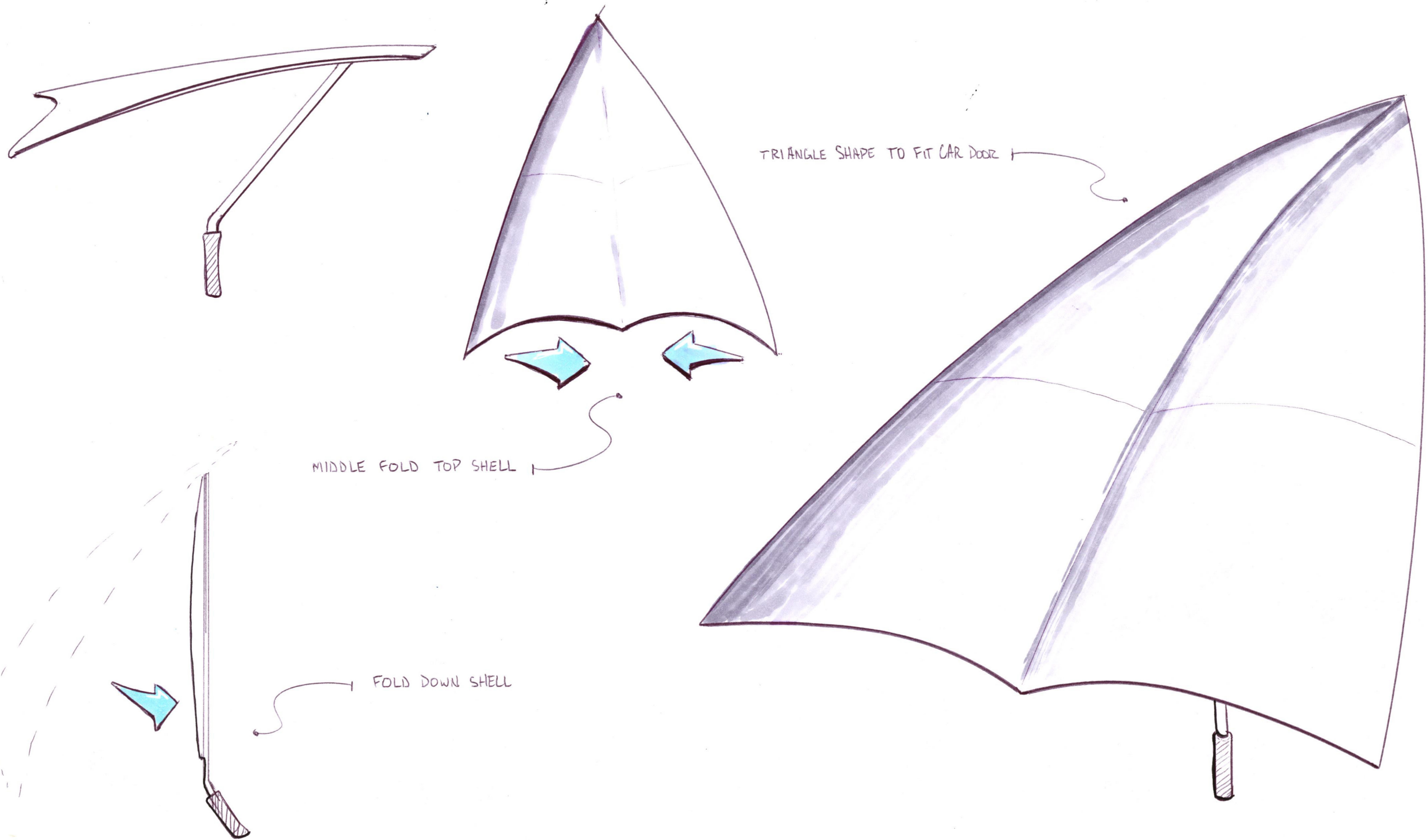


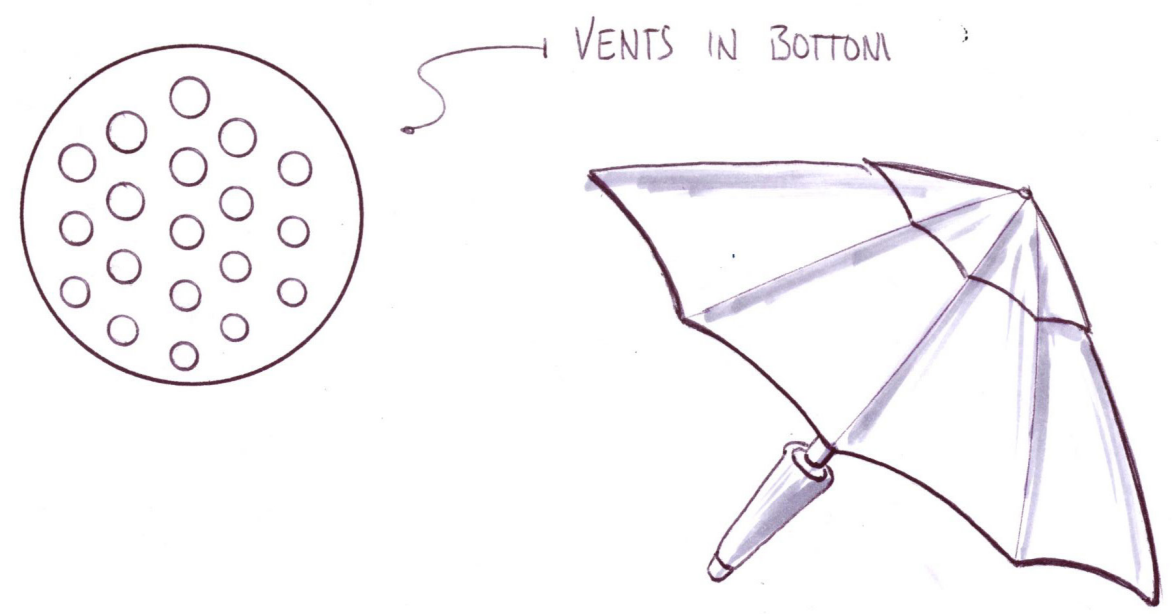
CONTAINS WET CANOPY



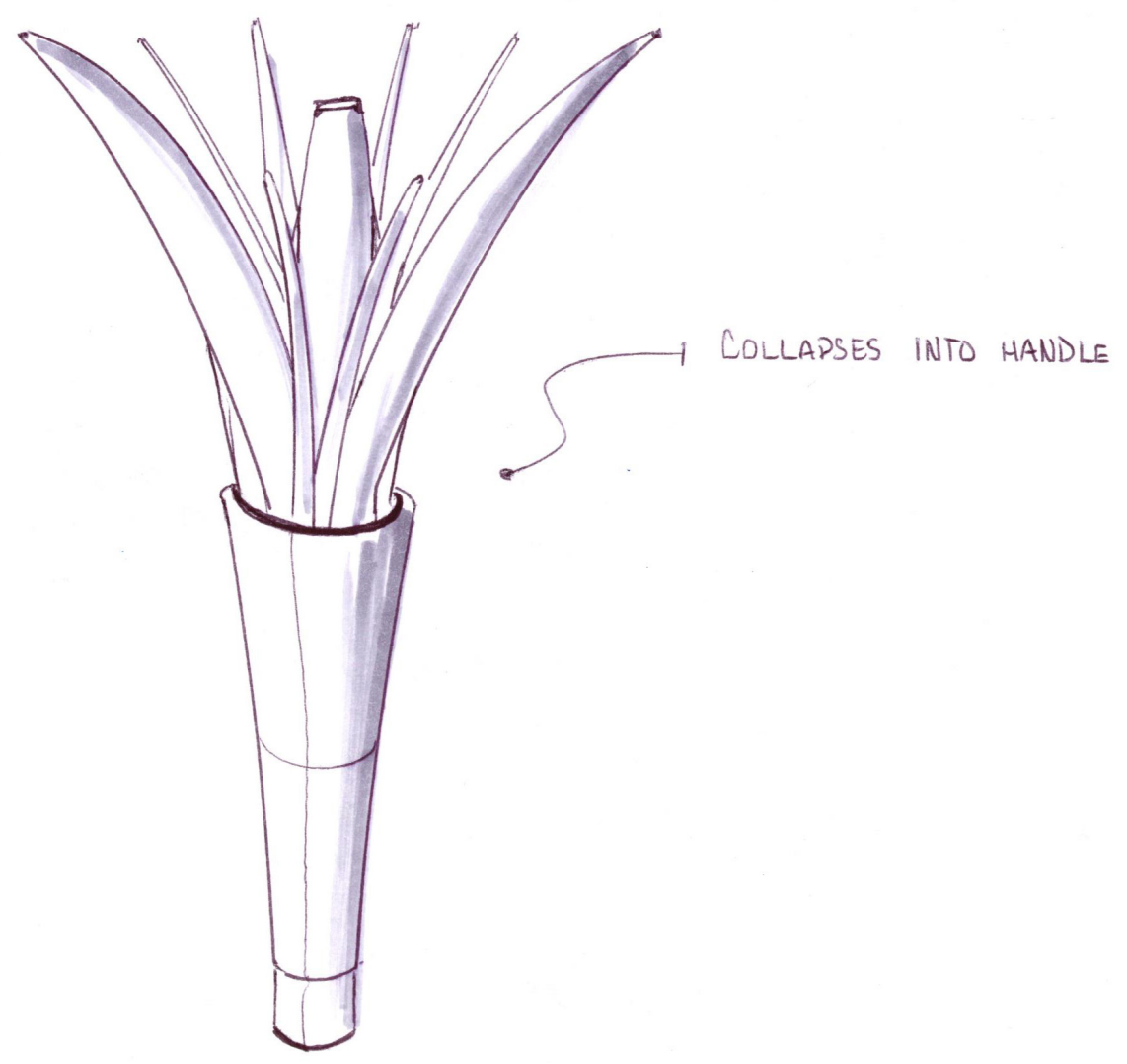
SUCTION CUP TO GLASS



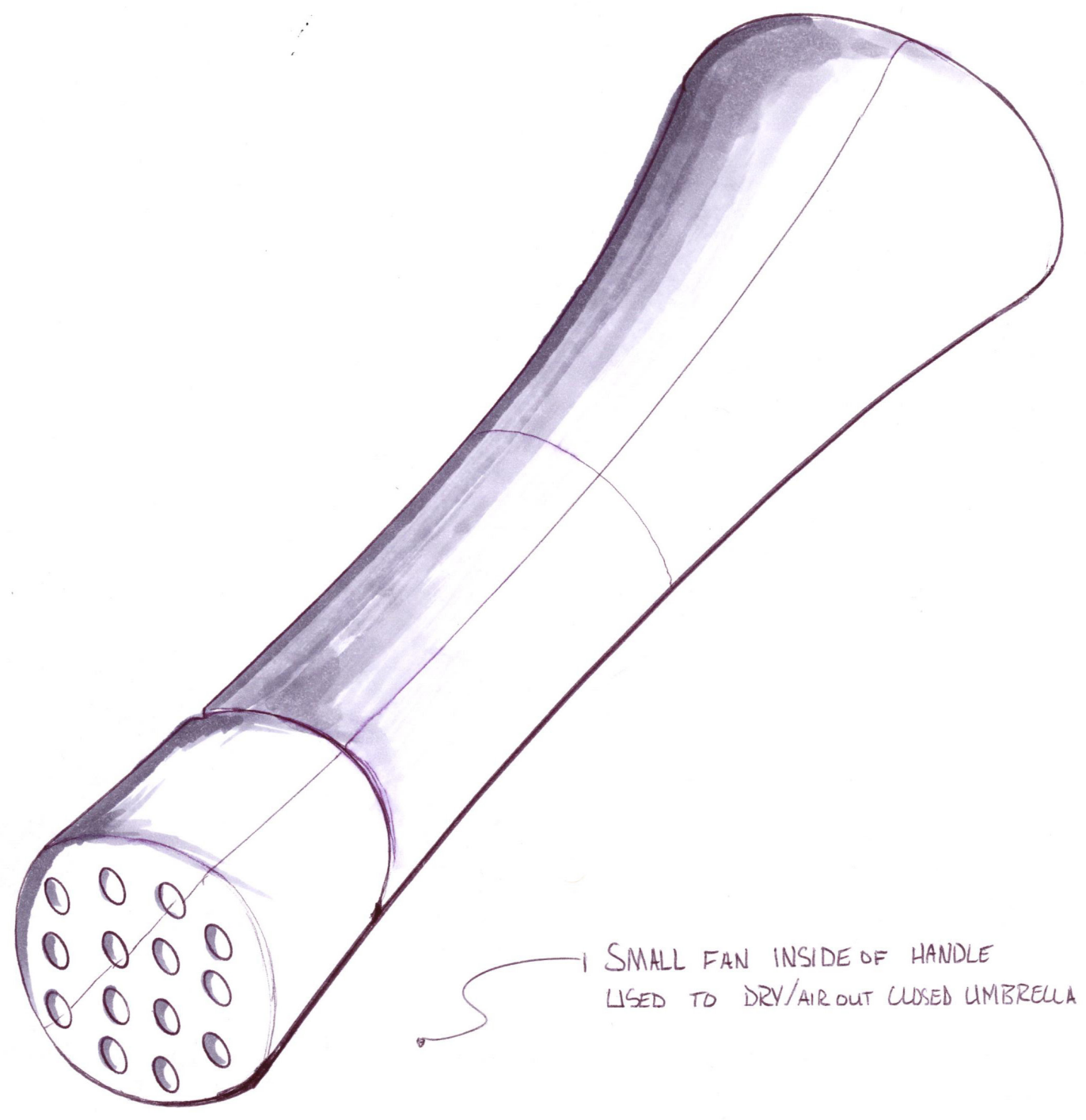




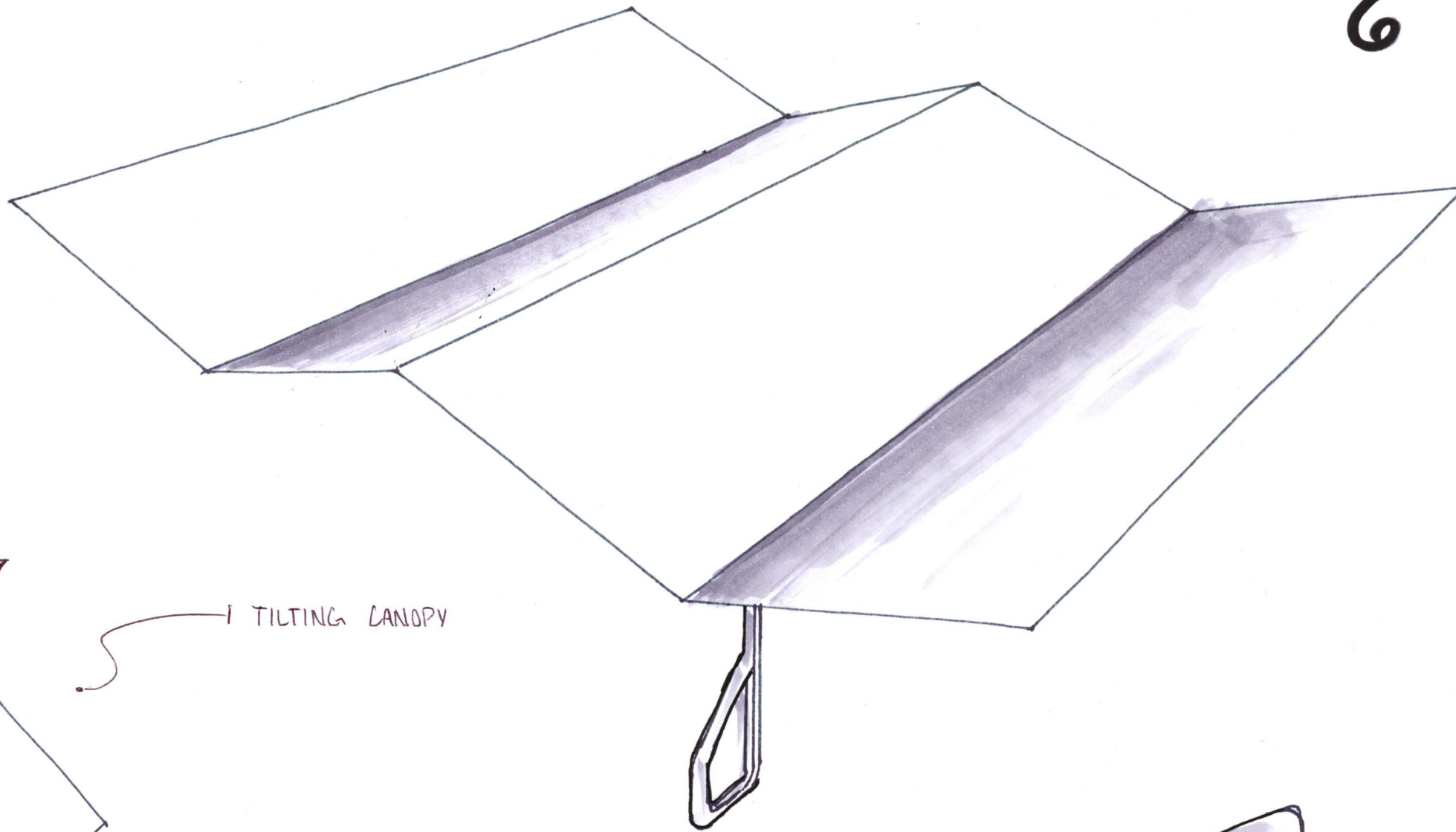
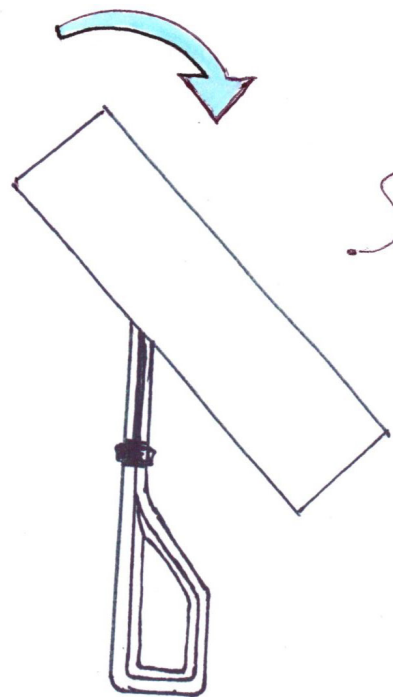
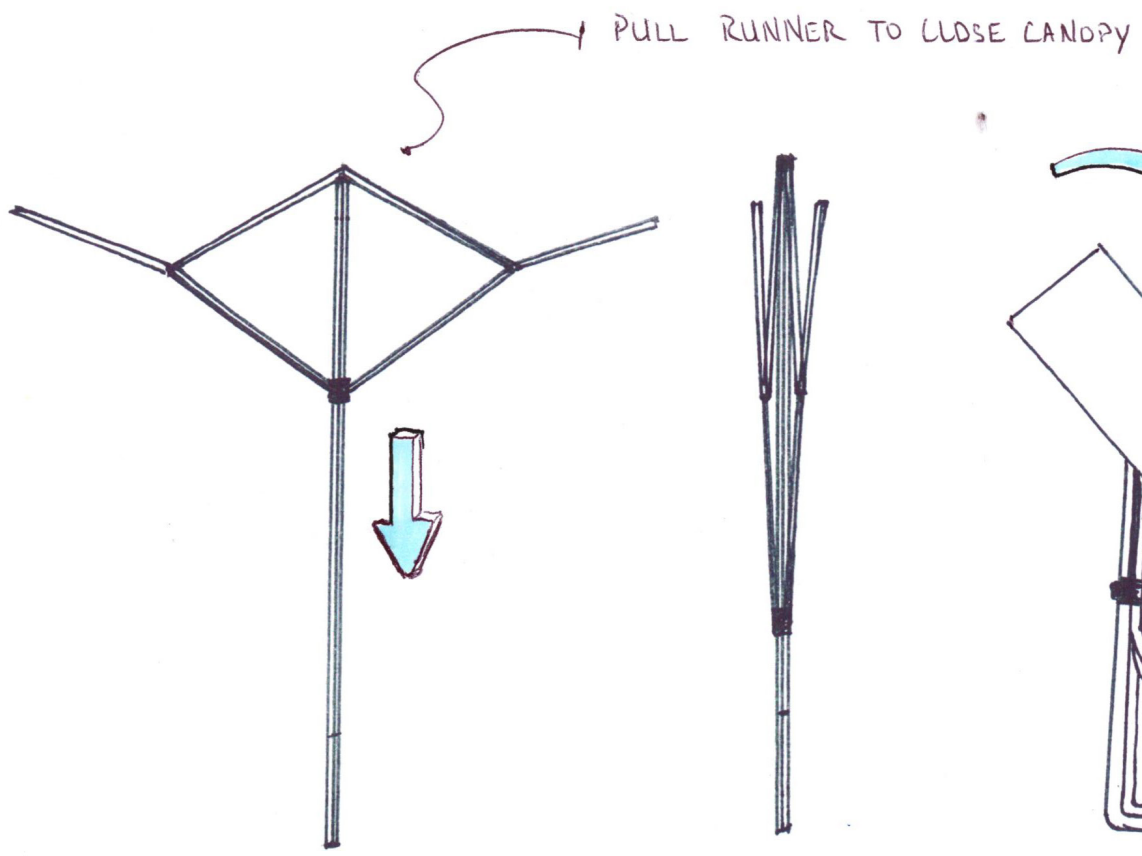
VENTS IN BOTTOM



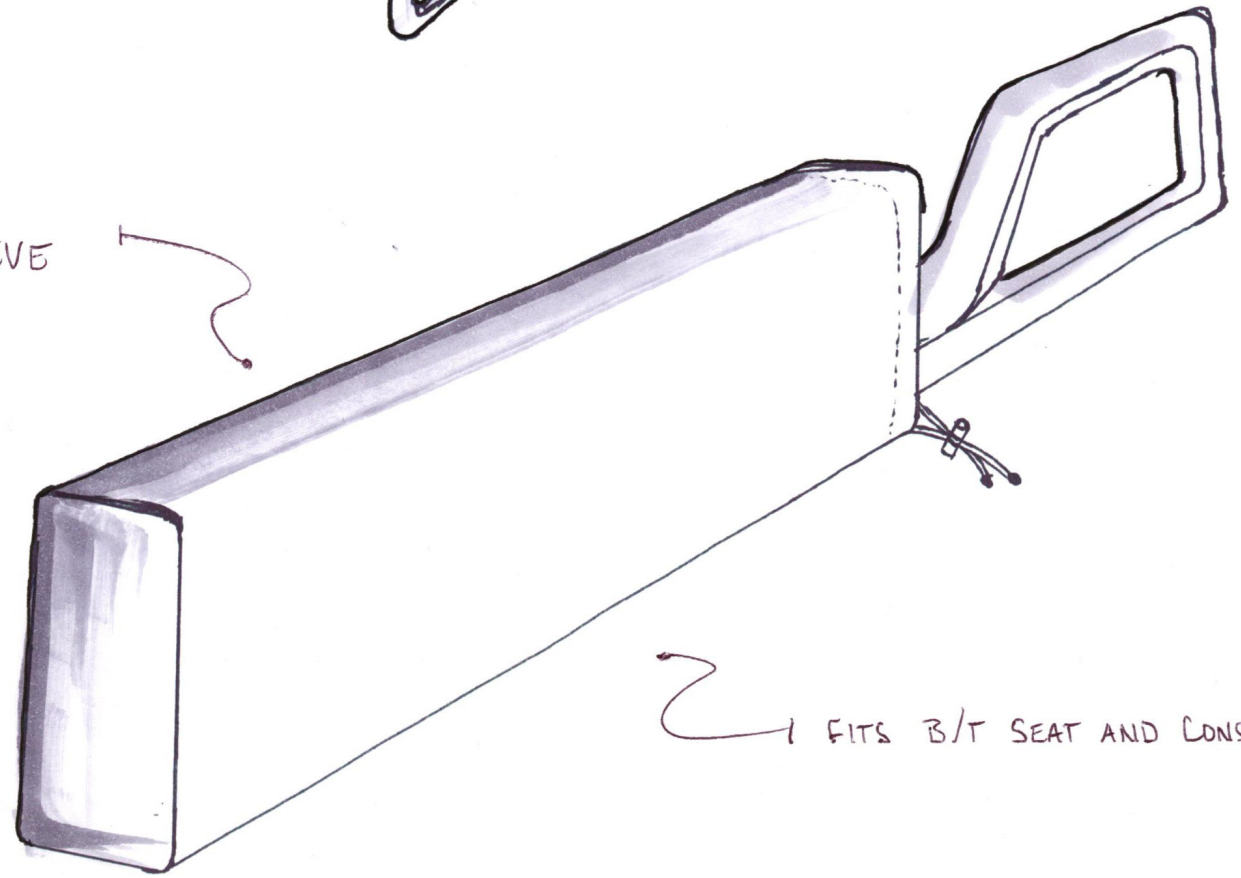
COLLAPSES INTO HANDLE

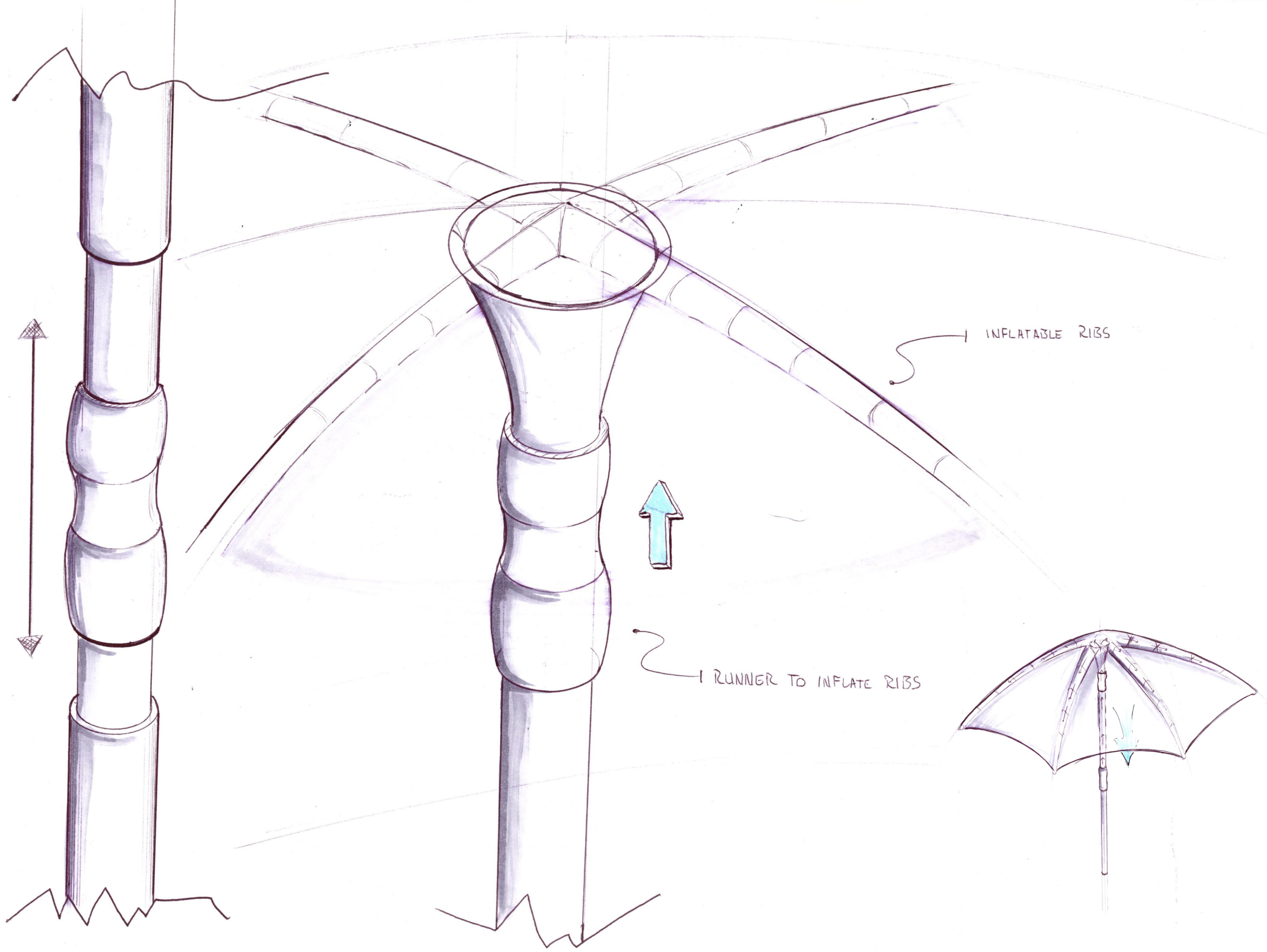


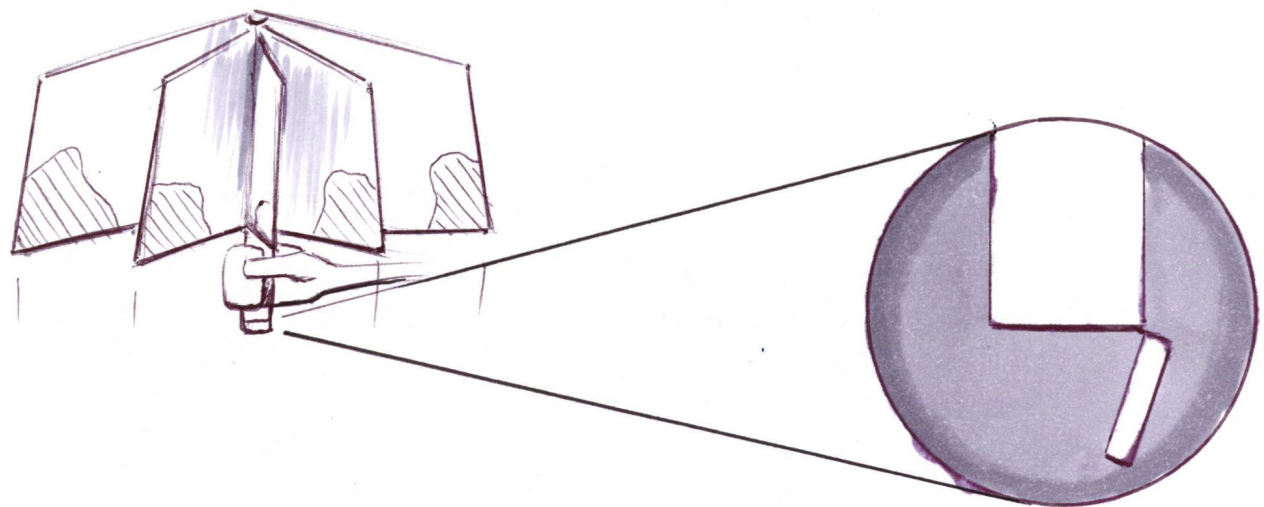
SMALL FAN INSIDE OF HANDLE
USED TO DRY/AIR OUT CLOSED UMBRELLA



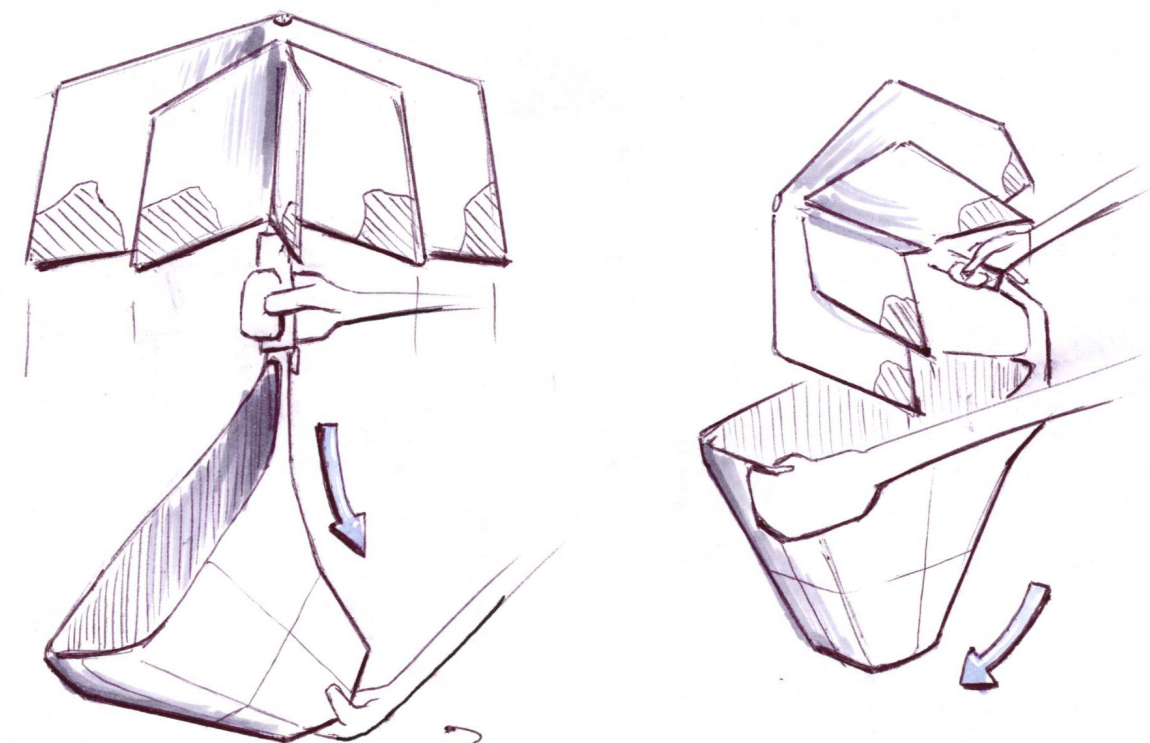
PROTECTIVE SLEEVE







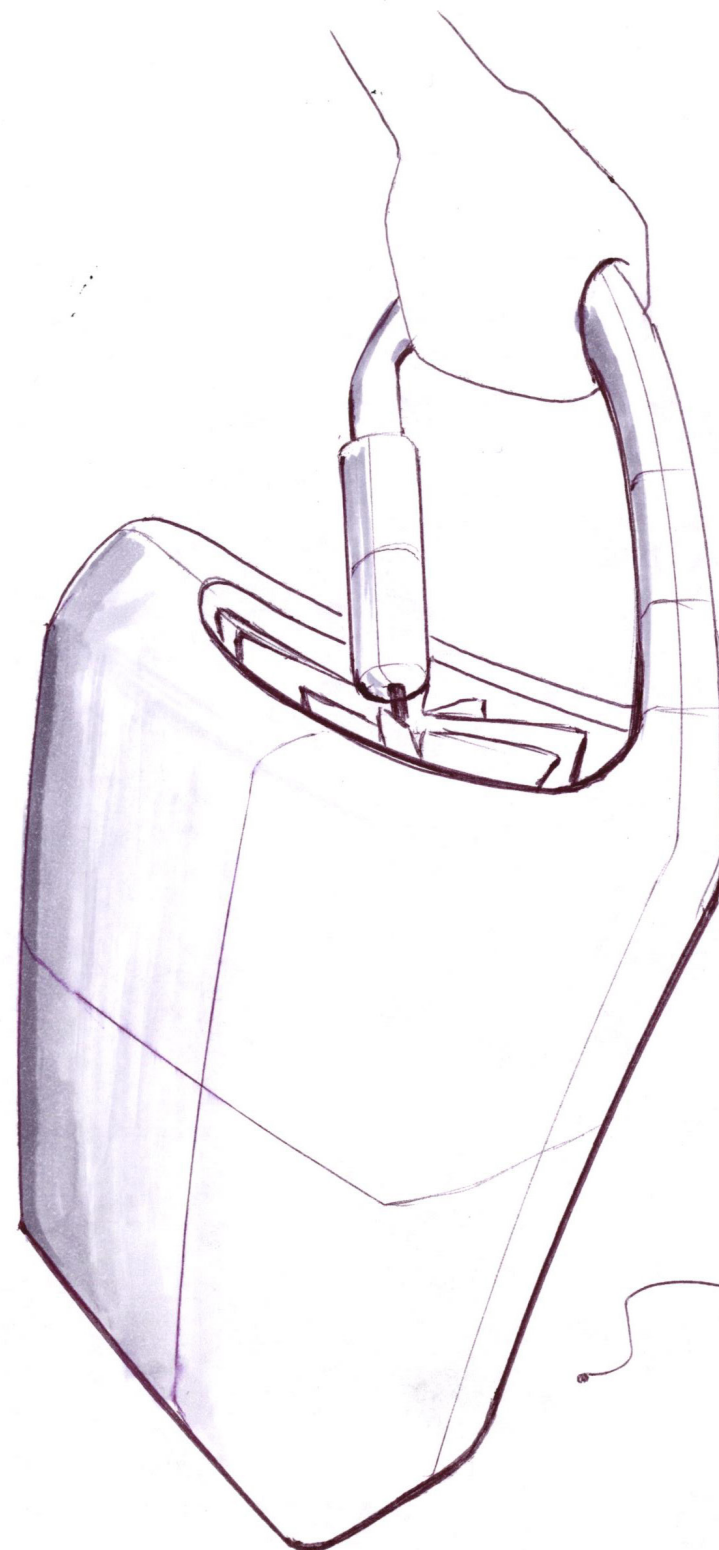
DOOR TO HOLD IN BAG



PULL OUT BAG

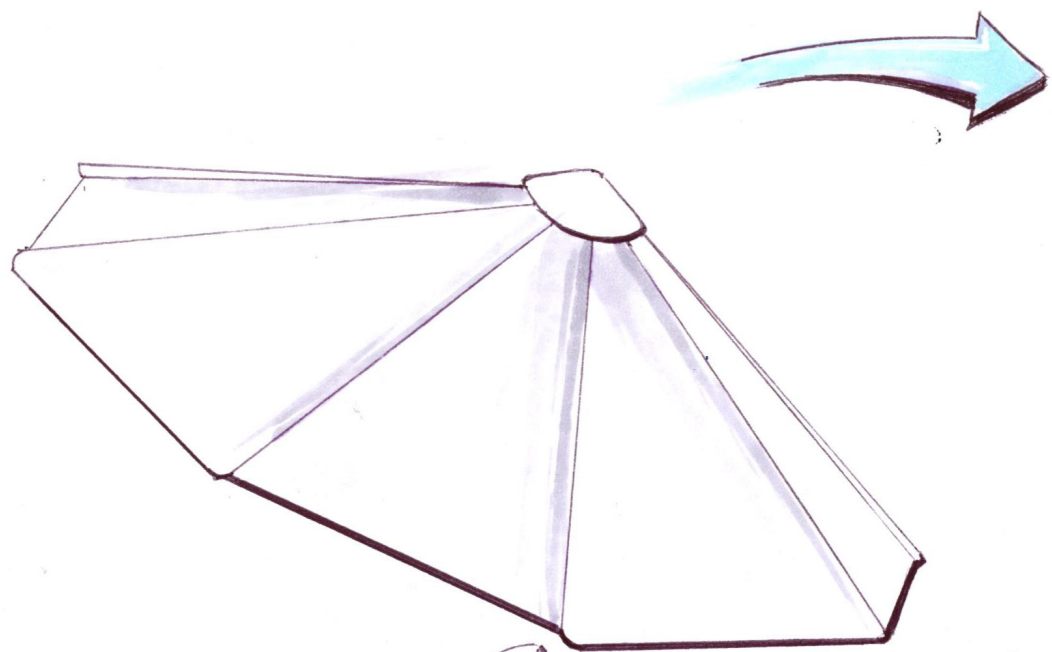


PULL BAG OVER UMBRELLA

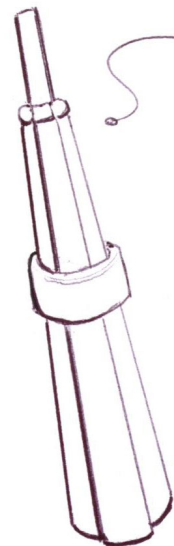


CARRY BAG WITH UMBRELLA TO STAY DRY

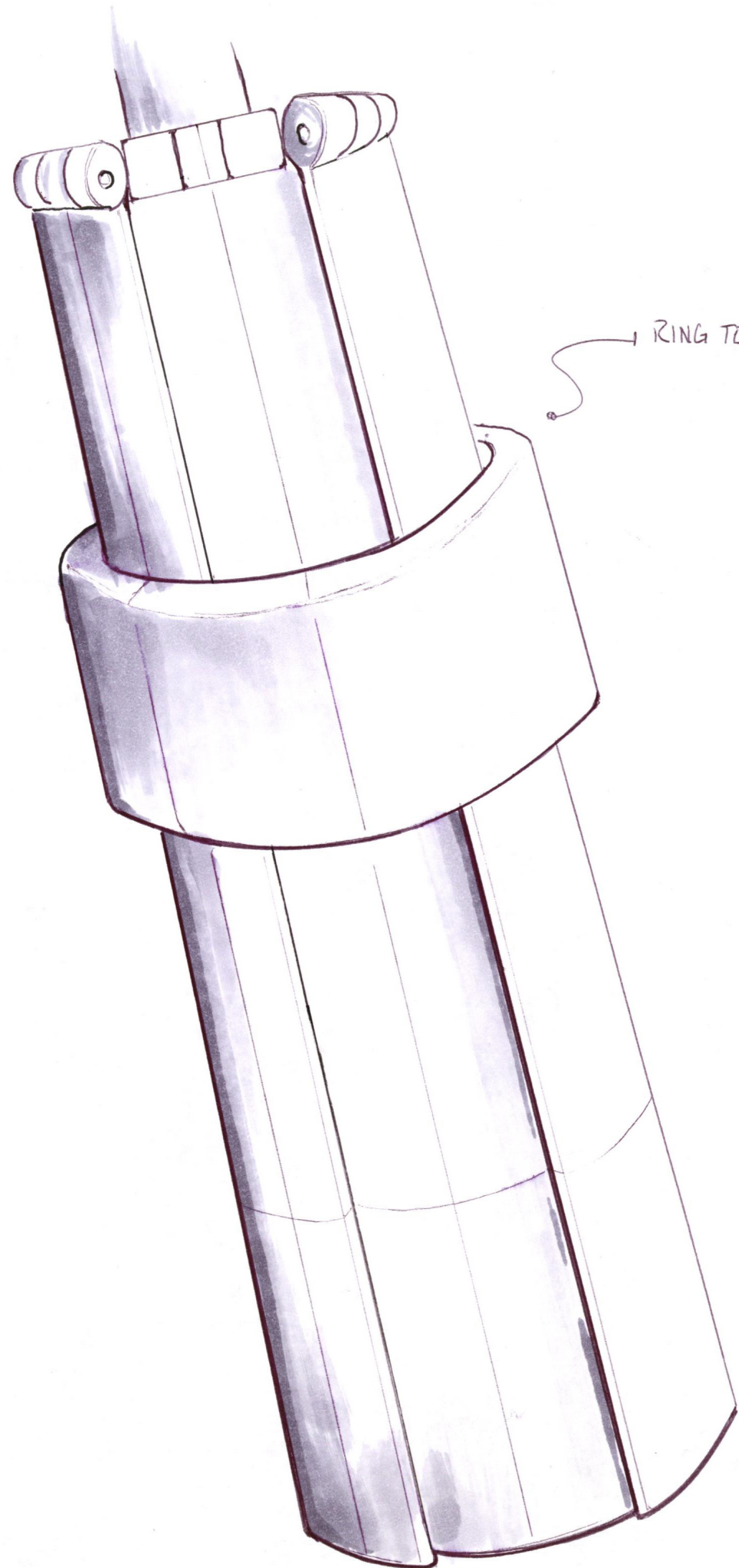
BAG PREVENTS EXTRA DRIPPING



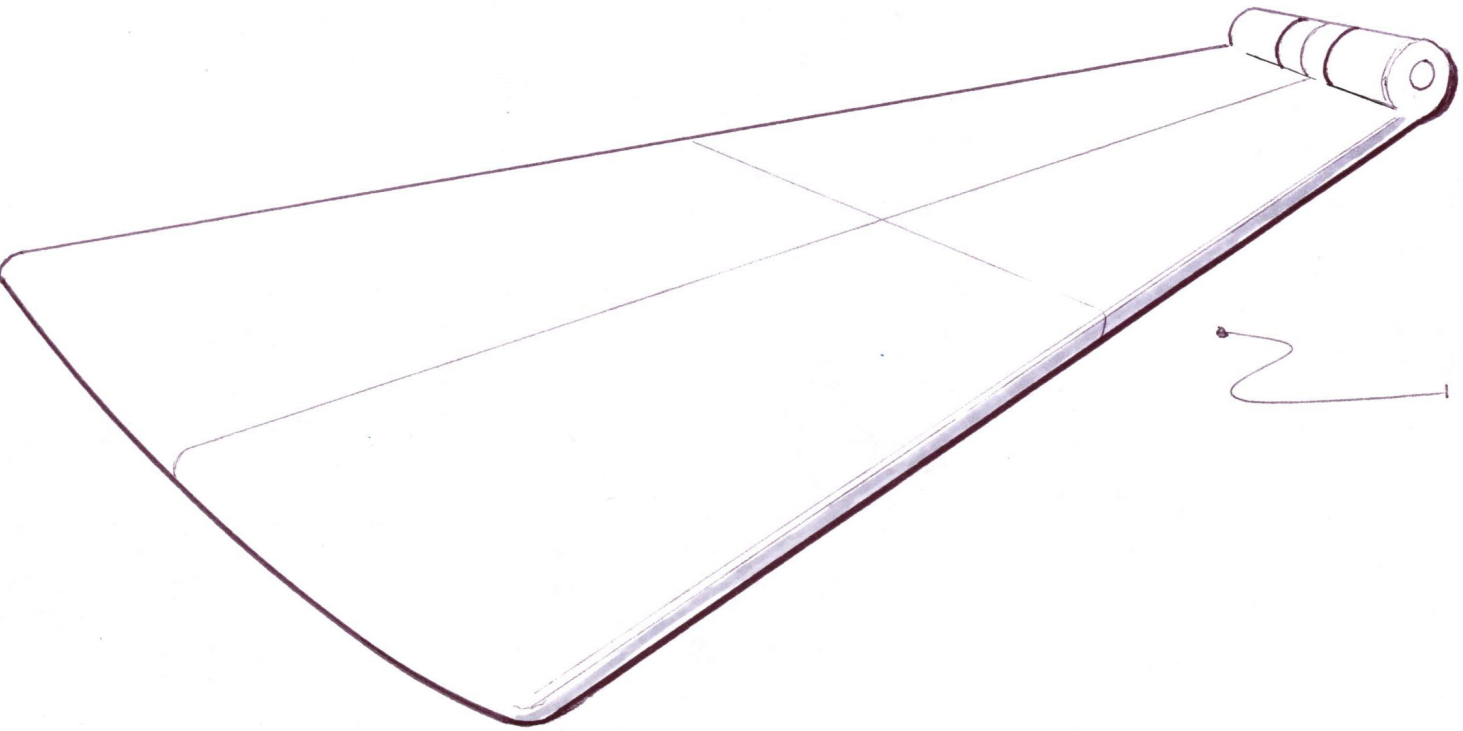
OVER LAPPING LEAFS



INVERSE FOLDING LEAFS



RING TO HOLD DOWN LEAFS



FOLD DOWN LEAF

