

SOL STILL

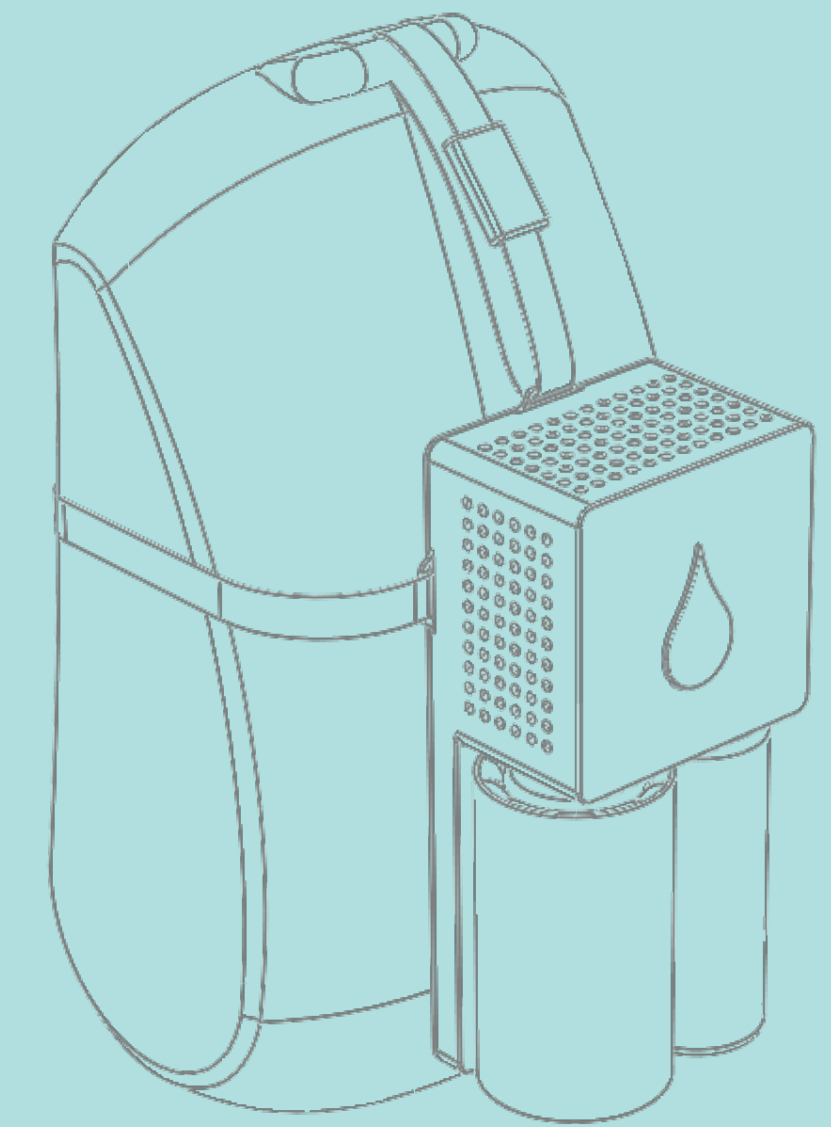
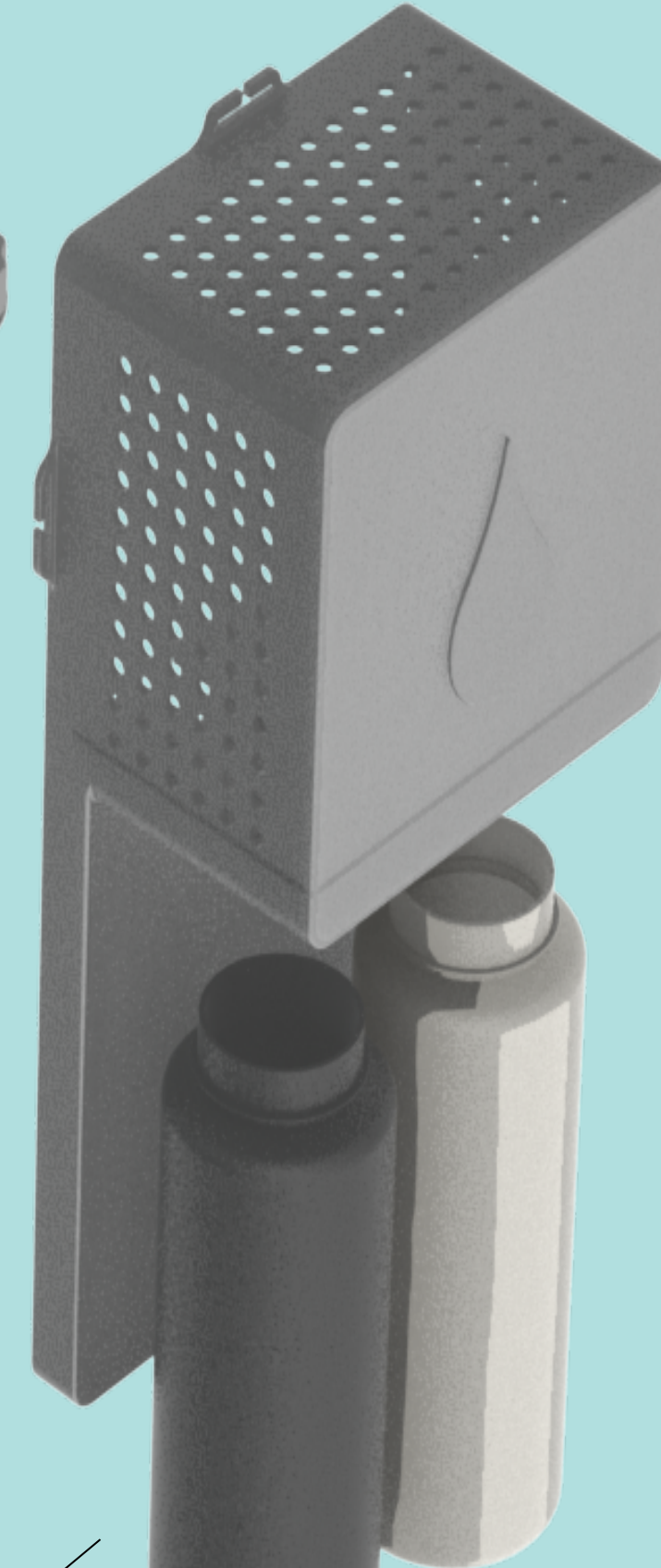
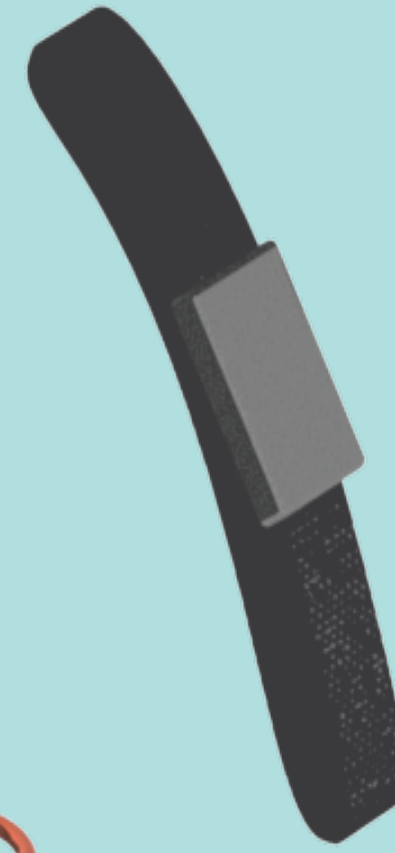
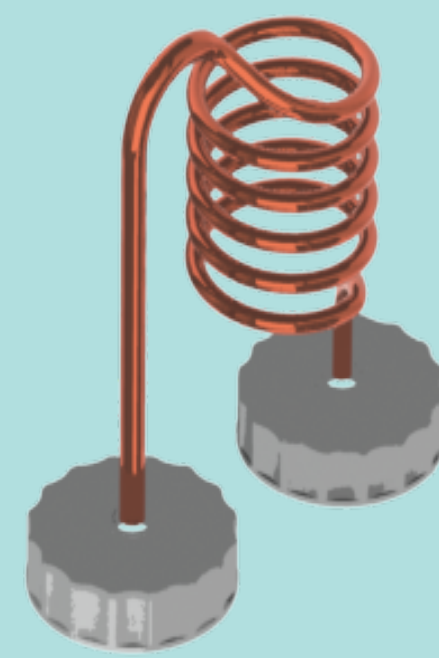
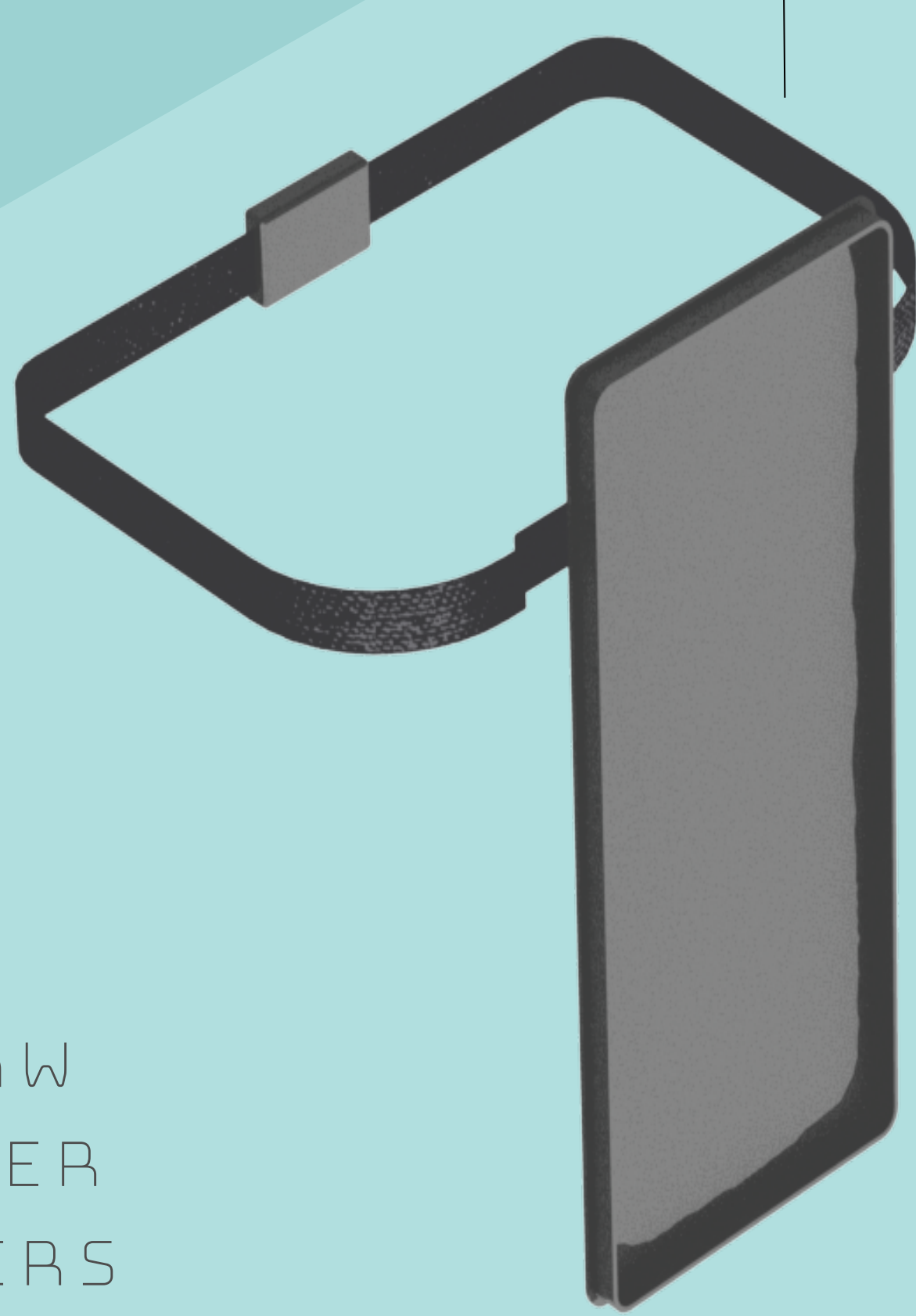


MIGRANTS CROSSING THE SONORAN DESERT PERISH FROM DEHYDRATION AND HYPERTHERMIA. OUR GOAL IS TO PROVIDE AN ALTERNATIVE APPROACH TO WATER PORTABILITY AND TREATMENT.



3280 HUMAN REMAINS WERE RECOVERED SINCE 2009

ADJUSTABLE STRAPS TO ATTACH TO BACKPACK
 STRAW FILTER TO DRINK DISTILLED URINE
 CASING HOLDS DISTILLING SYSTEM AND EXTRA STORAGE SPACE



STRAW FILTER LAYERS

A. TWO CHARCOAL LAYERS FOR REMOVING CHLORINE, VOLATILE ORGANIC COMPOUNDS, AND ODORS.

B. AMMONIUM REDUCER FOR WHEN URINE IS DISTILLED.

PROCESS OF THE SOL STILL
 FILL

CARRY

EMPTY

DISTILL

THE DISTILLING PROCESS:

THE SUN HEATS UP THE CONTAMINATED WATER, THE WATER TURNS INTO A VAPOR, CONDENSES BACK INTO A LIQUID AND DRIPS INTO A CLEAN BOTTLE.

SOURCES OF WATER:

1. MONSOON RAIN



2. CATTLE TANKS



3. URINE AND SWEAT



BUBBLE WRAP ALLOWS SUNLIGHT TO PASS THROUGH WHILE INSULATING
 BLACK STAINLESS STEEL BOTTLE COATED WITH SPECTRALLY SELECTIVE ABSORBER TO ABSORB SUNLIGHT
 COPPER CONDENSER ALLOWS EASY TRANSFER OF HEAT