

BUILD YOUR OWN **MUSEO AERO SOLAR**

ABOUT MUSEO AERO SOLAR

Museo Aero Solar (2007–present) is an airborne, lighter-than-air form made solely from reused plastic bags. What began from the premise of a collection has unfolded to be an urgently necessary investigation on coexistence, aeronautics, and architecture, aimed to rethink the way we navigate new territories and venture beyond the rules of gravity. In a fascinating use of the platform of the museum, Museo Aero Solar shows how a collective project can emerge from individual acts, and potentially retake a polluting product and transform it into a mind-expanding material. The resulting collection—which includes more than 20,000 plastic bags culled from countries including Colombia, Cuba, France, Germany, Italy, Palestine, Switzerland, the United Arab Emirates, and the United States, among others—brings forward an insistence to grasp the Sun.

The Museo Aero Solar is a growing community that has decided to come together under a common name and a cause. In the past 10 years, Museo Aero Solar has already landed in more than 21 sites around the world.

museoaerosolar.wordpress.com

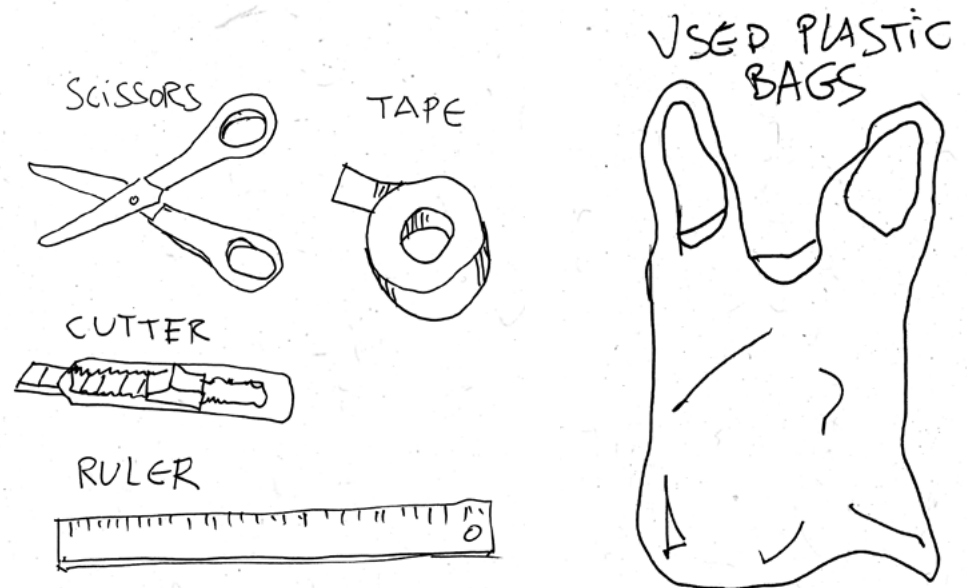
aerocene.org/buildit

MATERIALS LIST:

- used plastic bags
- cutters
- scissors
- markers
- rulers (50cm long)
- meters (30m long and 5m)
- rolls of thin tape

TO MAKE IT FLOAT:

- nylon rope (diameter 5 mm)
- leaf blower or fan with adjustable speed



HOW TO BUILD IT

STEP 1

Start by collecting used plastic bags – you will need about 400 in total. Gather your friends and family and form your own plastic bag collection point, or participate by donating bags to a collection point in your area. Share details of your collection point with us – we will be happy to share it and spread the word!

What you need to set up a used plastic bag collection point:

- 1 poster with instructions + dates for the workshop
- 1 container for collecting plastic bags

STEP 2

After assembling your team and collecting used plastic bags, start working on your Museo Aero Solar floating sculpture. Organise a workshop: you will need scissors, rulers and tape to cut and paste used plastic bags into sheets.

STEP 3

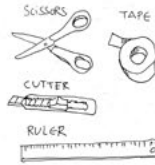
Workshop duration: approx. 6 hours (depending on the size of the sculpture). Choose which type of sculpture you would like to build. The sculpture can be built in 3 different suggested shapes: Tetro, Alto, or Chico. The most common (and some say easiest) shape is the Tetro, which is built on the basis of 3 squares, each measuring at least 6 x 6m. The sculpture's volume allows it to lift up only using heat from the Sun.

After you've chosen your shape, follow the instructions in the infopack provided to build your sculpture. Or get creative and build a sculpture in another shape!

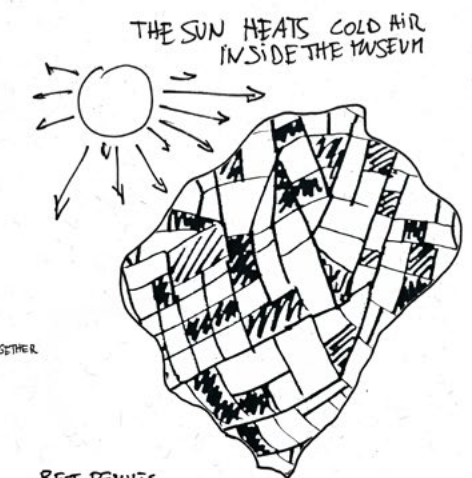
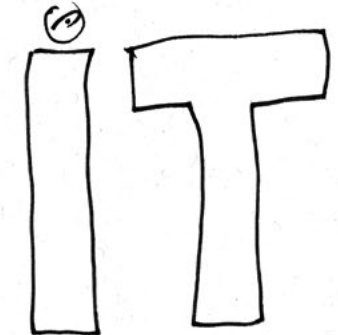
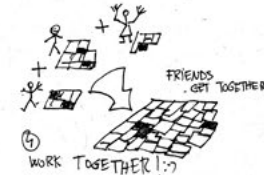
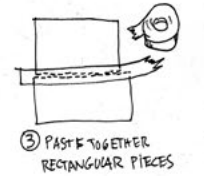
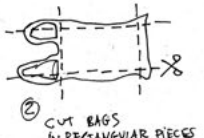
STEP 4

Launch your sculpture made out of your own personal puzzle pieces! The best time to fly your sculpture is a sunny morning with no wind.

HOW TO BUILD IT



HOW YE DO IT:



BEST RESULTS
CLEAR SKY
NO WIND



FLOAT IN THE SKY!

The equation that has been used to calculate the sculpture's rise is **$PV = nRT$**

where **P** is pressure in Pascal,

V is the volume in cubic meters,

T is the temperature in degrees Kelvin (equal to degrees Celsius + 273),

n is the number of moles of the gas, and

R is a constant equal, for dry air, 287 J / kg * Kelvin.

A negligible error that changes the variable quantities is water vapor, which slightly changes the consistency of the air.