LITER OF LIGHT

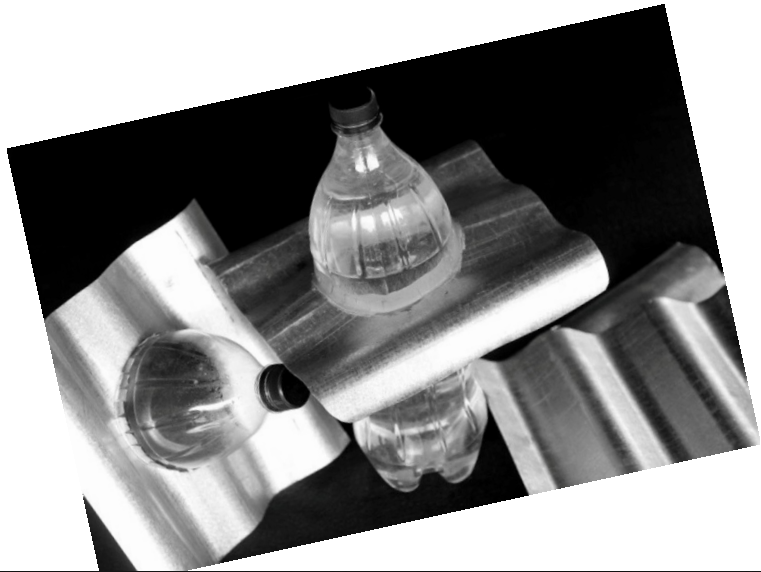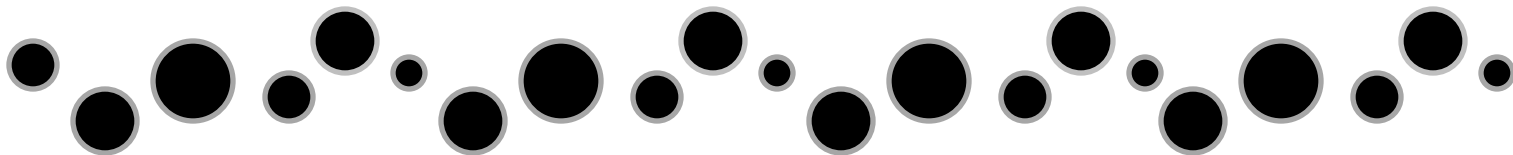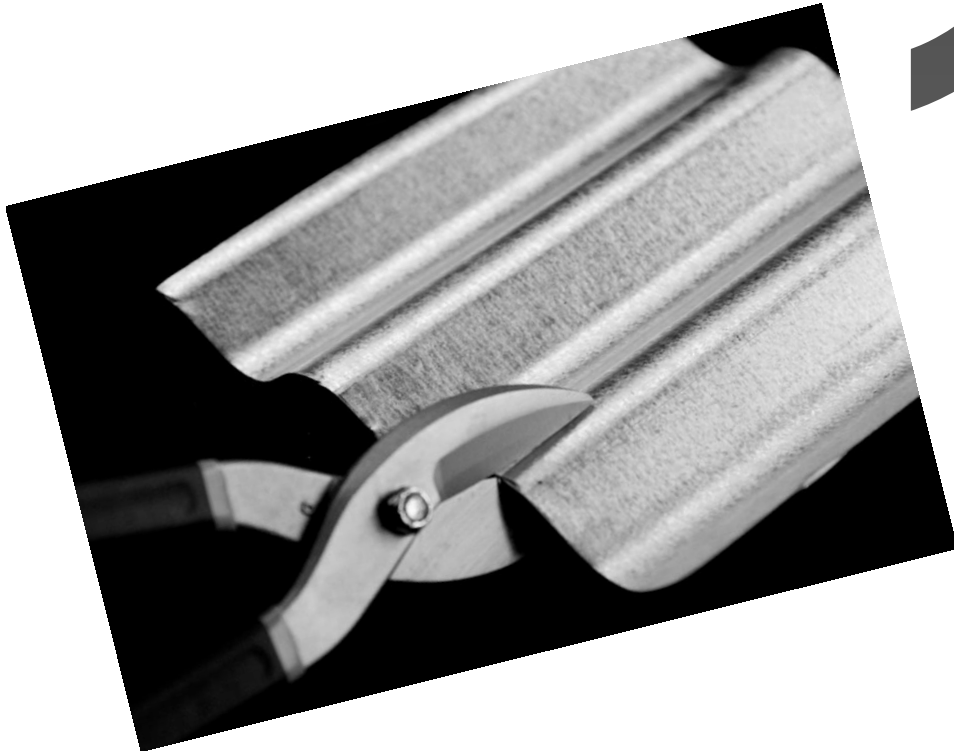# How to build a Solar Bottle Bulb

Materials

- PET soda bottle
- Galvanized Iron (GI) sheet
- Epoxy/Rubber sealant
- Bleach
- Filtered Water

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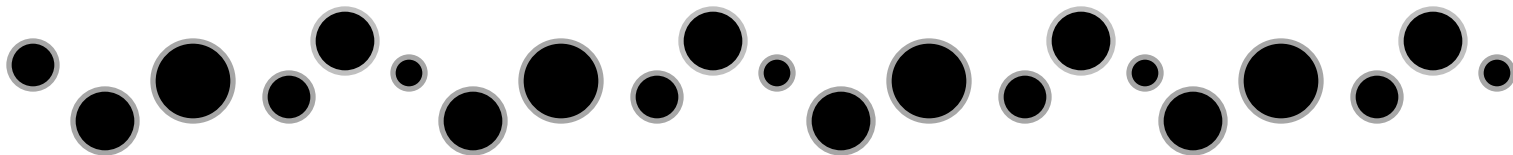
How to ASSEMBLE the Solar Bottle Bulb

1 Cut approximately 9 x 10 inches of GI sheet

(corrugated or flat, depending on the roof where Solar Bottle Bulb will be installed)
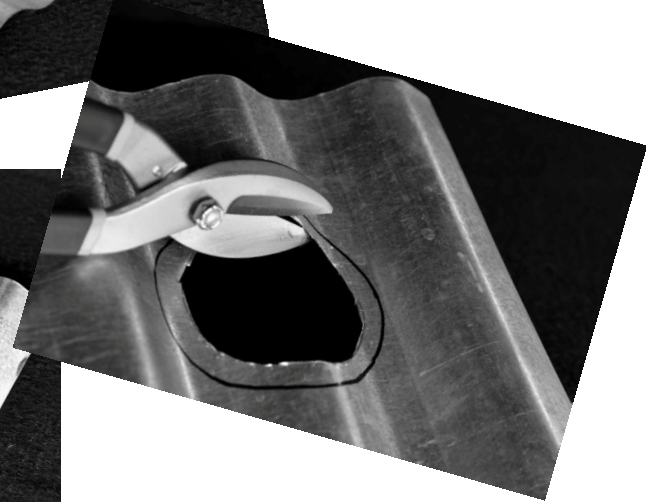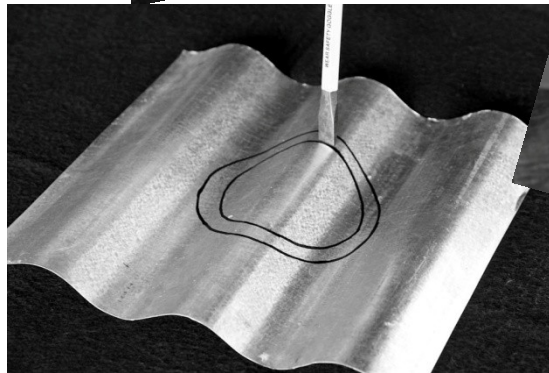
Recommended GI sheet: 0.06 gauge 24

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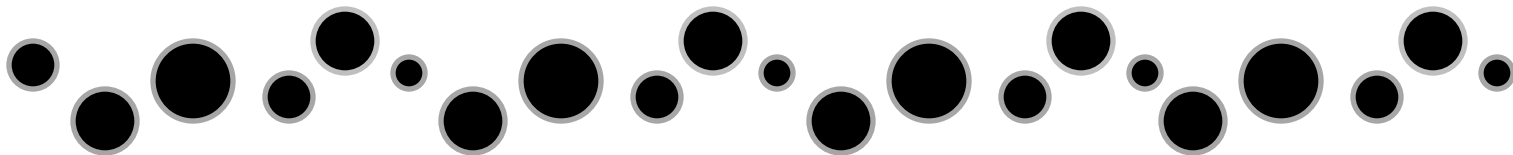# How to ASSEMBLE the Solar Bottle Bulb

At the center of the GI sheet, draw 2 circles

(outer: similar to the circumference of the soda bottle; inner: 1 cm smaller).
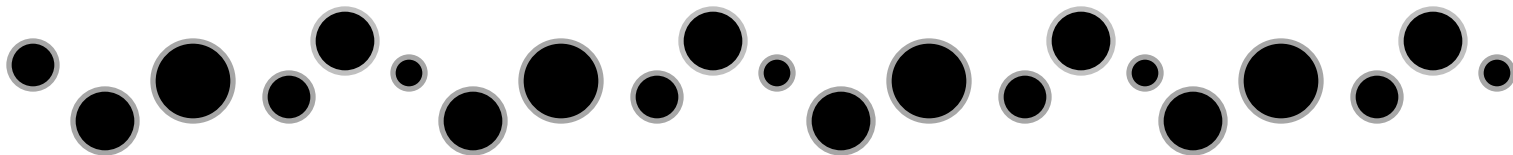
Cut the inner, smaller circle.

2

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How to ASSEMBLE the Solar Bottle Bulb

Cut the 1 cm difference radially, making strips and bend upwards, perpendicular to the GI sheet.
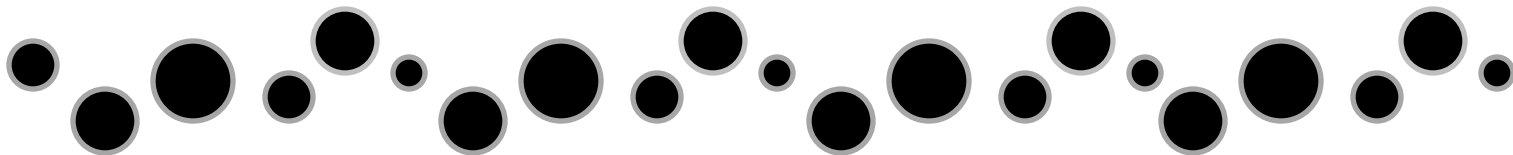
3

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How to ASSEMBLE the Solar Bottle Bulb

4 Using sandpaper, scratch the surface around the upper third portion of the PET bottle where the GI sheet will be placed, to allow the epoxy or rubber sealant to stick better.
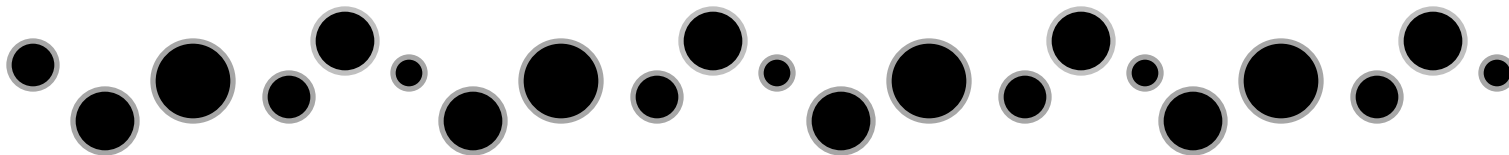

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How to ASSEMBLE the Solar Bottle Bulb

5

Insert the bottle into the GI sheet until the upper third.

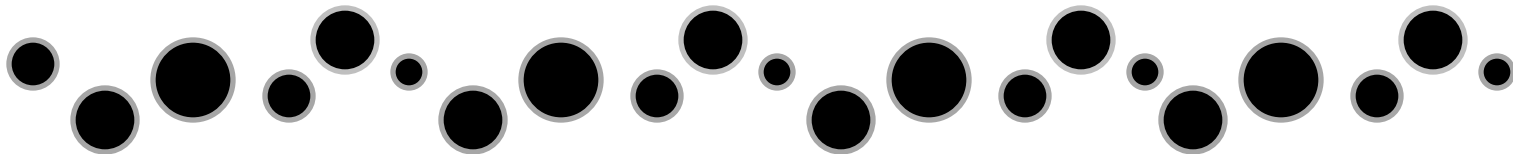Apply rubber sealant on the strips above and around the area below.

Wait to dry.

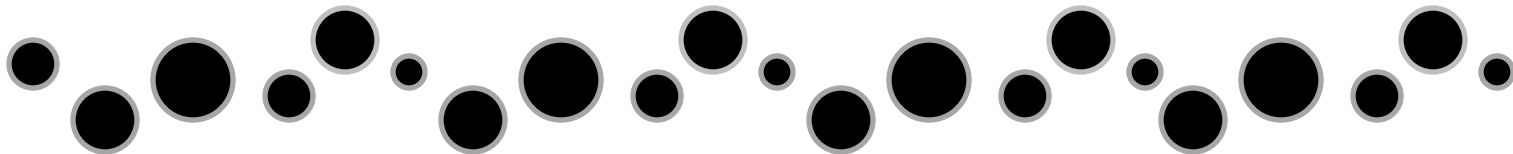LITER OF LIGHT

How to ASSEMBLE the Solar Bottle Bulb

6 Fill the PET bottle with filtered water and ~10 mL (2 capfuls) of bleach.
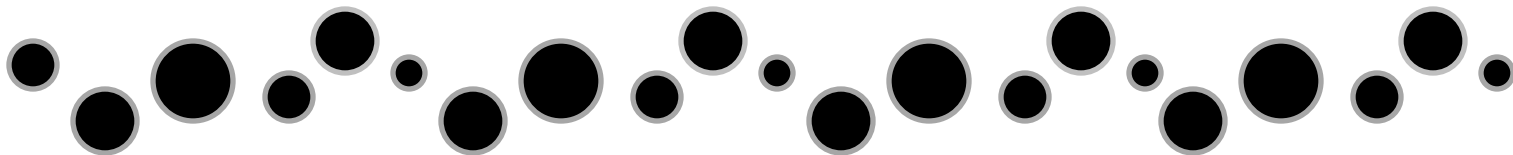
Cover with its original cap.

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The solar bottle bulb is now ready for installation!

How to INSTALL the Solar Bottle Bulb

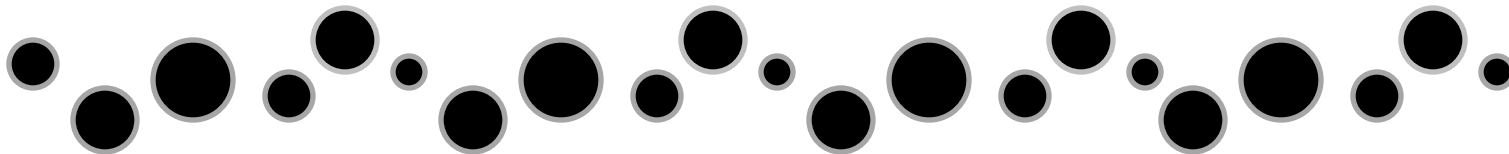**1** Cut a hole on the roof, similar to the bottle circumference.

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How to INSTALL the Solar Bottle Bulb
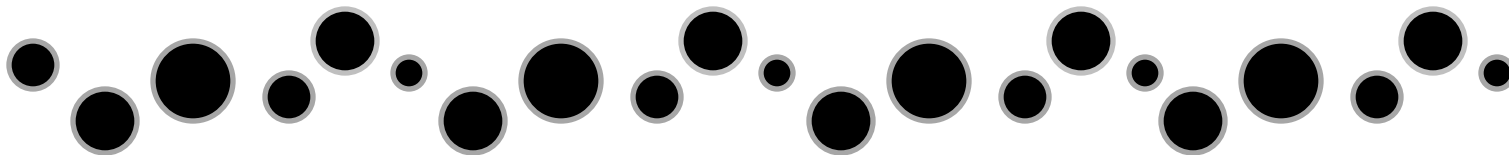

Apply rubber sealant around the hole.

2

LITER OF LIGHT

How to INSTALL the Solar Bottle Bulb

Place the solar bottle bulb into the hole.
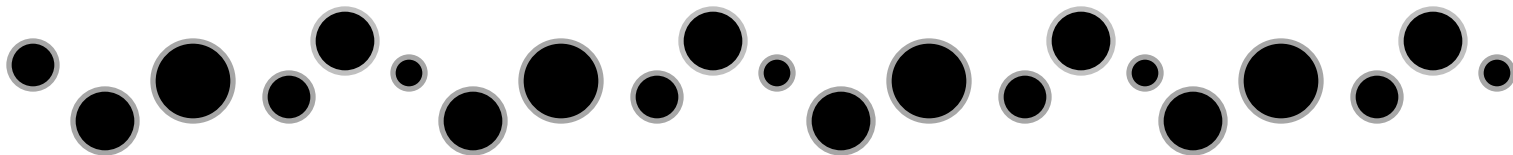
Make sure it is firmly in place.

3

LITER OF LIGHT

How to INSTALL the Solar Bottle Bulb

4

Drill 3-4 holes on each side of the solar bottle bulb and put in the rivets.
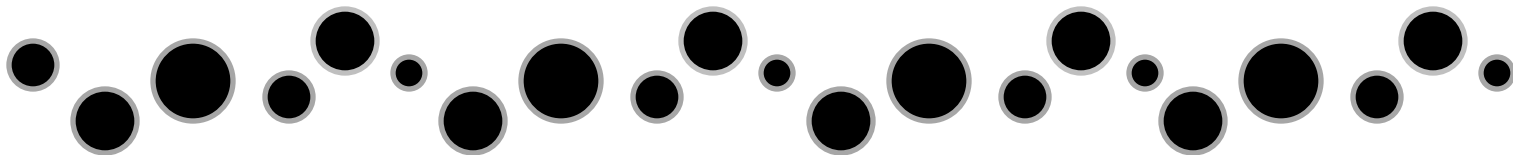

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How to INSTALL the Solar Bottle Bulb

Apply rubber sealant on all sides of the GI sheet of the solar bottle bulb to avoid leakage.
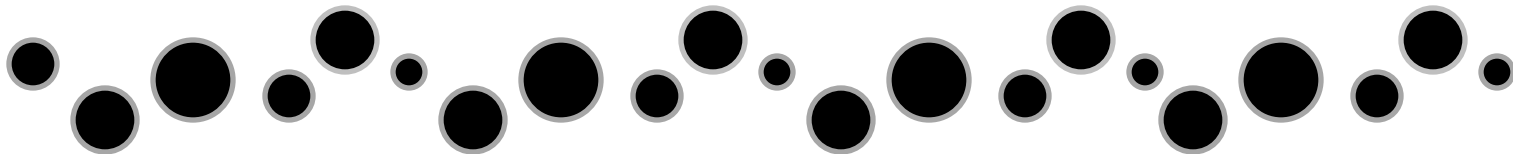
5

Make sure to cover the rivets.

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How to INSTALL the Solar Bottle Bulb

6

Place a protective plastic tube on the bottle cap and apply rubber sealant.

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The Solar Bottle Bulb has been installed to provide ~55 watts of light

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