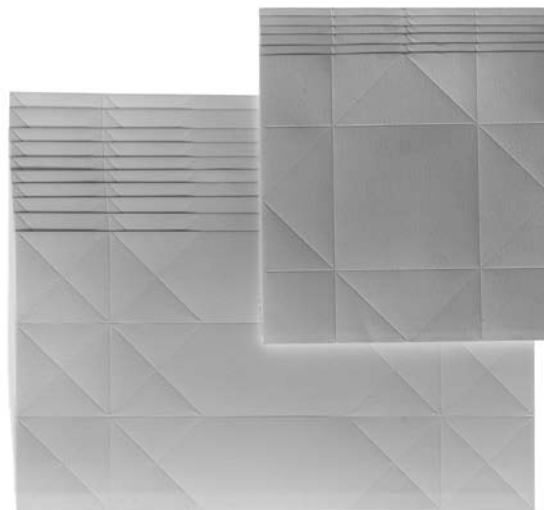
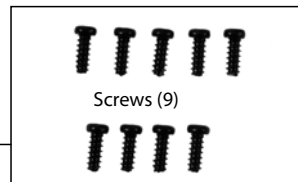
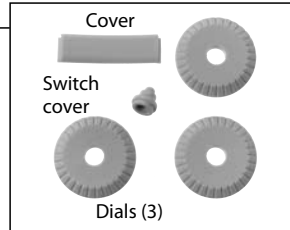
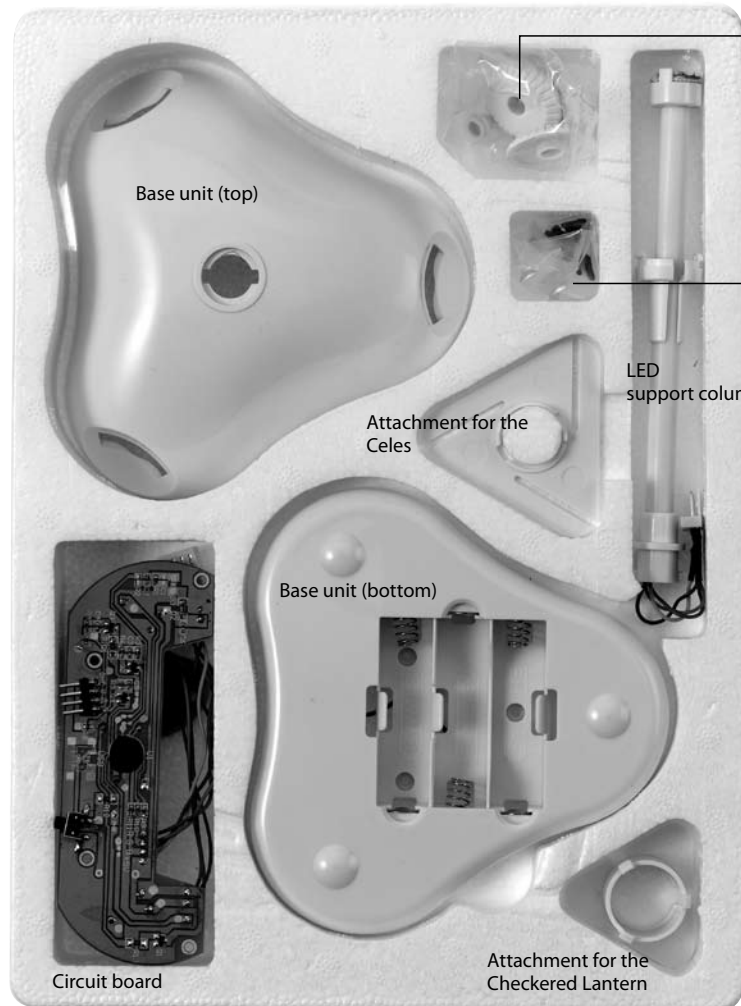


# How to Assemble and Use the Supplement AKARI Origami

## Parts in the Kit

Assembly time for the LED stand : Approximately 30 minutes



Origami paper  
For the Checkered Lantern: 6 sheets  
For the Celes: 10 sheets with 3 pre-scored strips per sheet (cleanly cut the strips apart using a utility knife or other cutting tool)

\* TANT N-8 paper is used for the origami paper here.  
\* The origami paper is included in the case with the parts shown at left. Take care to ensure that you do not accidentally throw the paper away.



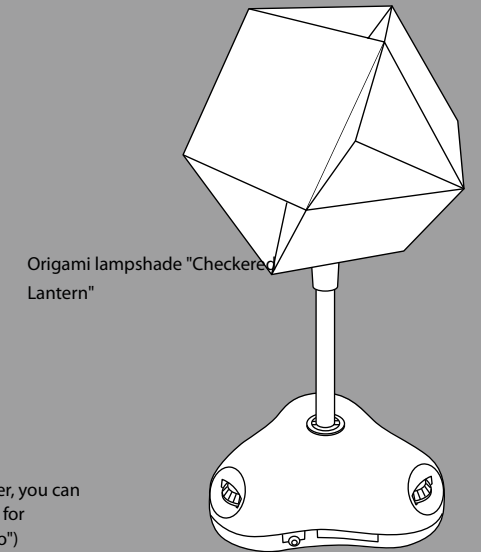
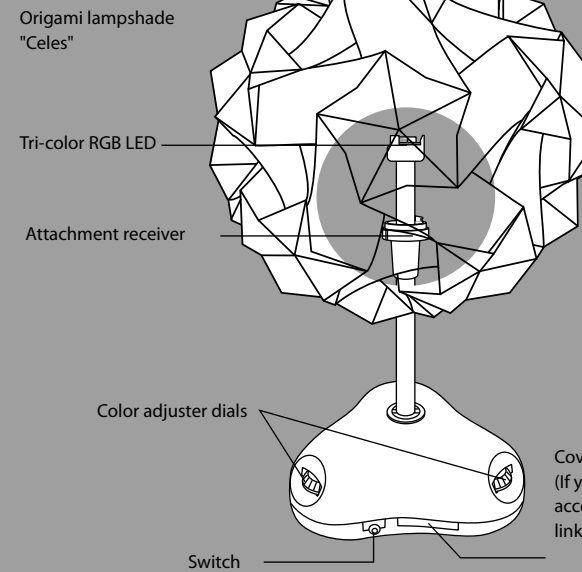
## Things you will need

A Phillips screwdriver, a utility knife, three AA batteries

### Materials used in this kit

Base unit, attachments, dials, cover, switch cover, LED stand, and support column stand (white): ABS  
Attachment receiver (white): POM  
Support column (white): PS  
Screws: Iron (chromium-plated)  
Battery contacts: Iron (nickel-plated)

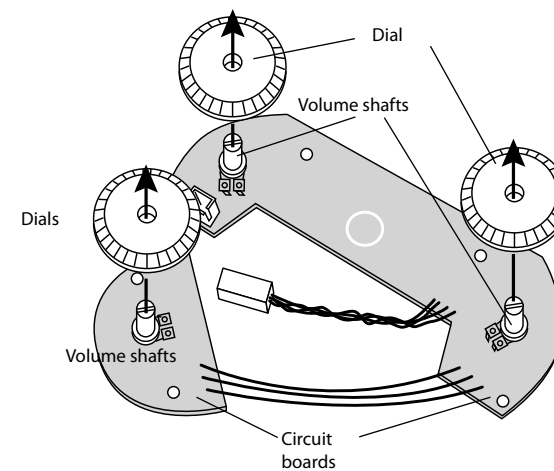
## Structure of the AKARI Origami unit



### ■ Attaching the circuit boards to the base unit

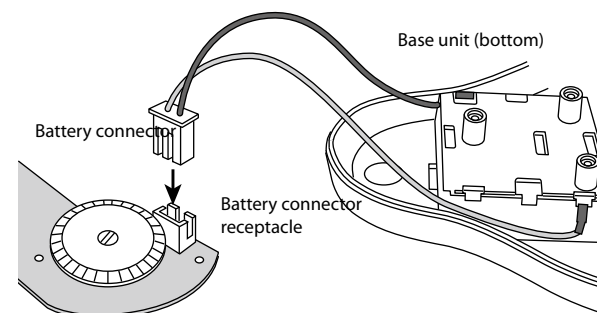
#### 1. Attach the dials to the circuit boards

Attach the three dials to the volume shafts on the two circuit boards. Orient the dials with the jagged sides up as shown in the diagram, and push them onto the posts all the way to the bottom.



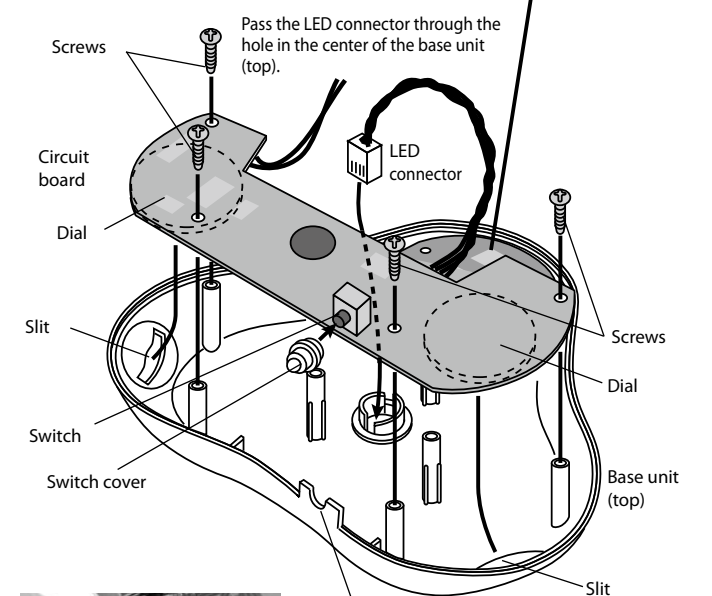
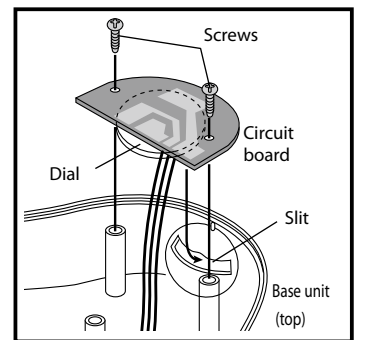
#### 2. Connect the connector from the battery box to the circuit board

Insert the battery connector coming out from the battery box on the base unit (bottom) into the battery connector receptacle on the circuit board.



#### 3. Attach the circuit boards to the base unit (top)

Attach the large and small circuit boards to the base unit (top) with screws using the position of the switch on the large circuit board as a guide for positioning the circuit boards. Slide the circuit boards in at an angle so that the dials protrude out through the slits in the base unit (top). Insert the switch cover at this time, as well.



Line the switch up with this part here.

Attach the switch cover to the black switch cap from above at an angle as shown in the picture. If you find it difficult to attach the cover, loosen the screws on the circuit board and move the circuit board back before attaching.

## ■ Assembling the Base Unit

### 1. Place the cover on the base unit (bottom)

Slide the cover into the slot on the base unit (bottom) to attach it.

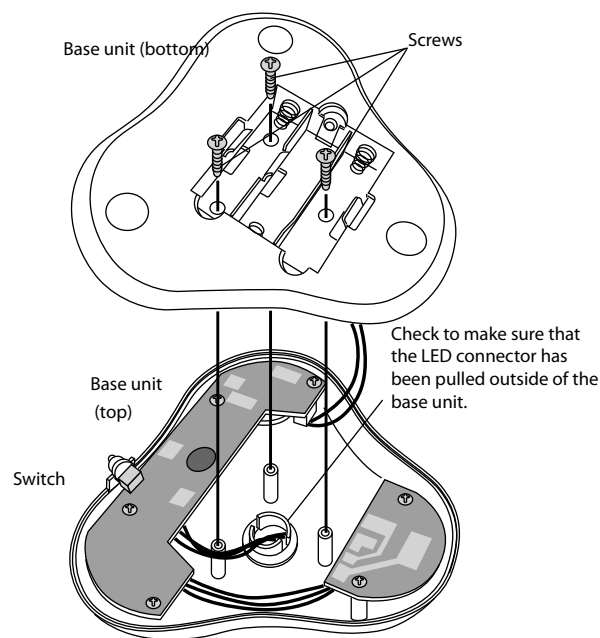


Be sure to check the orientation of the cover.

\* Do not attach the cover if planning to link the AKARI Origami to the "Japanino", the supplement from Vol. 27 of the magazine.

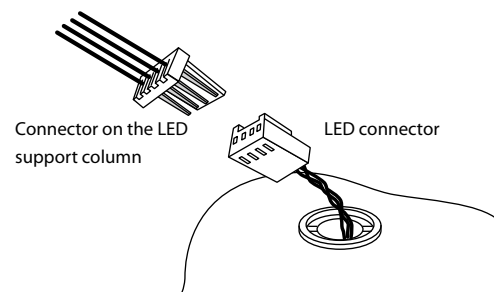
### 2. Fit the base unit (top) and the base unit (bottom) together

Place the base unit (bottom) onto the base unit (top) while lining the position for the switch up with the switch on the base unit (top). Screw down the base unit (bottom) plate using the three holes in the battery box, being careful not to let any wires get caught in the areas screwed down.



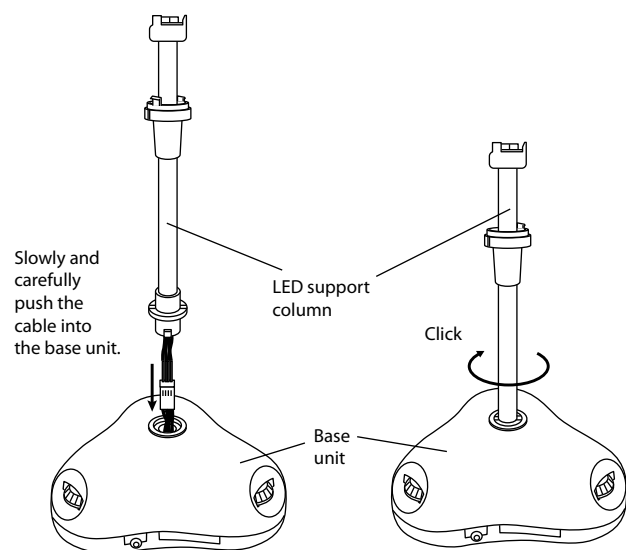
### 3. Attach the LED connector to the LED support column

Attach the LED connector from the hole on the base unit to the connector on the LED support column.

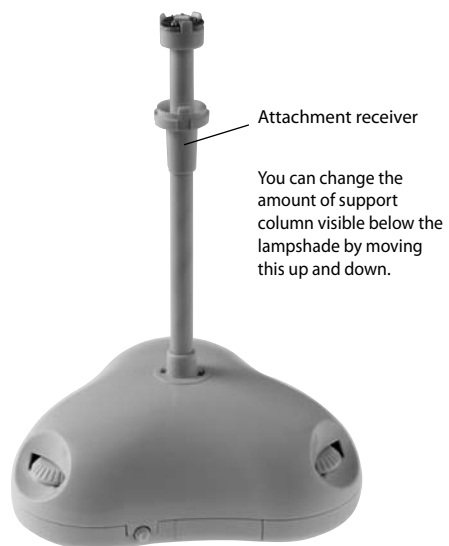


### 4. Attach the LED support column to the base unit (top)

Push the LED connector part into the center of the base unit, and insert the support column into the hole on the base unit. Line up the notch on the hole with the protrusion on the support column to insert, and then continue to turn the support column clockwise until it clicks into place.



### Completed

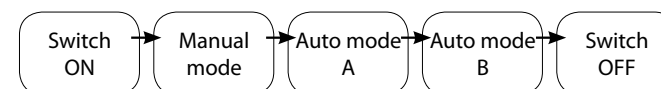


For information on how to make and attach an origami lampshade, go to page 5 of this instruction booklet.

## ■ Turning the LED ON

### Turn the switch on the base unit ON

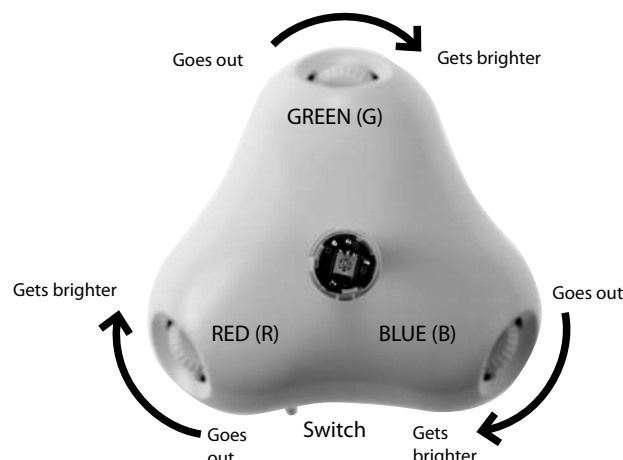
The switch on the AKARI Origami unit is programmed to cycle through to the next operation in the sequence given each time the button is pressed. Each of the modes will be described below.



\* The power will turn OFF automatically one hour after the switch was last pressed.

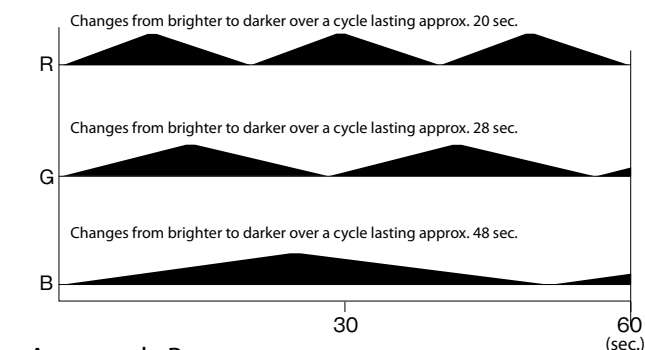
### Manual mode

In this mode, you can set the color to whatever you want by turning the dials. Each of the dials is positioned from the switch as shown in the picture below. Each dial is set up so that the light will get brighter when the dial is turned clockwise as seen from above. Adjust the dials to produce the color you want.



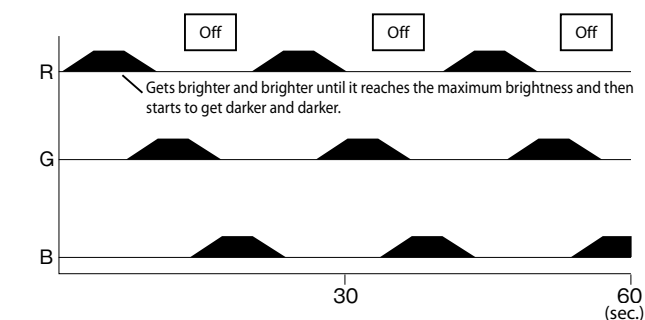
### Auto mode A

You can set it to this mode by pressing the switch twice starting with the switch in the Switch OFF position. Each color in the RGB LED will cycle through getting darker and brighter at different timing patterns. The timing patterns are as shown below, but the LED colors will roughly appear to change at random.



### Auto mode B

You can set it to this mode by pressing the switch three times starting with the switch in the Switch OFF position. Each color in the RGB LED will change between bright and dark in order over equally long cycles. With this mode, you can enjoy sharply defined color changes along with the blending of two colors that appears during the transitions from one distinct RGB color to the next.



Q: The LED will not light up even though the power is ON.

A: Confirm that the batteries are new and that they have been inserted in the correct direction. Check to make sure that the connector on the LED support column and the battery connector have been securely fastened in place. Also make sure that the wires have not gotten caught in the screws and cut.

Q: The light suddenly turns off unexpectedly.

A: In order to conserve energy, there is an Auto OFF function that works to turn off power automatically one hour after the last operation has been made. Press the switch button again to turn the power back on.

Q: The brightness levels do not change when the dials are turned.

A: The unit may be in Auto mode. Press the switch button repeatedly until the unit turns off, and then press it just once more to turn it back on. The unit will be in Manual mode, which allows you to adjust the brightness levels.

Q: Dials are hard to turn.

A: The base unit (top) and/or LED cable may be interfering with the dial(s). Remove the base unit (bottom) to check.

Q: Screws are hard to turn.

A: If you find that any screws are hard to turn, first try screwing in the screws alone without trying to attach anything in order to prime the screw holes before assembling. Try to use a screwdriver with a secure bit (end).

Q: The LED lighting is unstable.

A: The connector terminal connections may be bad. Unplug and plug the connector several times and try again.

Q: The battery box gets hot.

A: Remove the battery immediately, and then contact us using the contact information given below.

Q: I couldn't find any origami paper included with the supplement.

A: The origami paper is slipped into the bottom of the Styrofoam tray when the kit is packaged. Double check the contents of the cardboard box again.

Q: The switch is hard to press.

A: Using the instructions given on the lower right of page 2, adjust the position of the circuit board and reinsert the switch cover.



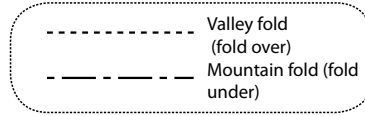
# How to Make an Origami Lampshade

Two different types of paper are included with this supplement for making lampshades for the AKARI Origami unit. You can make both the Checkered Lantern and the Celes and use each for a different location or type of situation. We've also included instructions on how to make another type of lampshade, although we did not provide any paper for this one. Please select some paper that you like and try making this one, too.



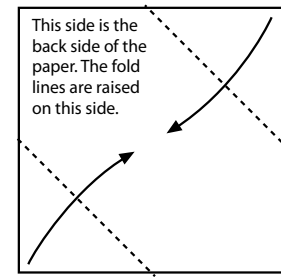
## The Checkered Lantern

Time to complete: 30 min. ~ 1 hr.

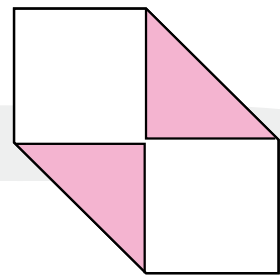


This lampshade was named the Checkered Lantern due to the fact that a checkered pattern emerges when the finished lampshade is attached and the LED is turned on. You will use the set of six square sheets of paper included in the supplement to make this lampshade. The paper comes with pre-inserted fold lines, so just fold the paper along those lines. Use the side with indented fold lines as the front side of the paper. The colored side of paper shown in the diagrams is the front side.

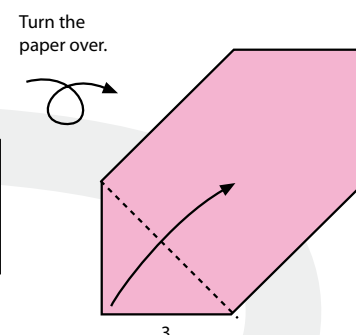
### How to fold one unit



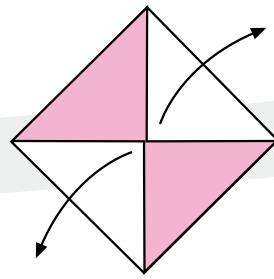
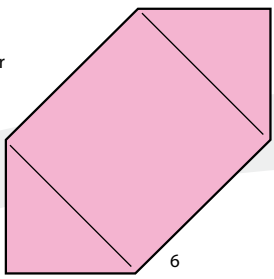
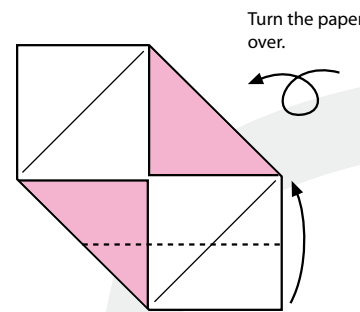
1. Take two opposite corners and fold them in to the center.



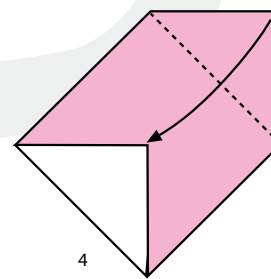
2



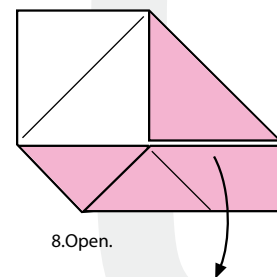
3



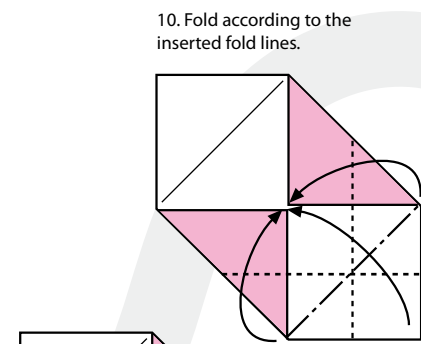
5. Open the two folded corners.



7. Fold as shown while taking care not to let fold lines in overlapping parts get crooked.

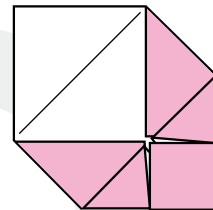
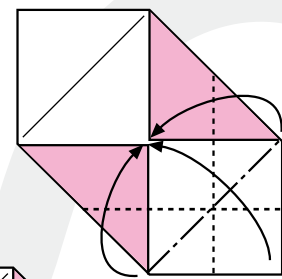


8. Open.

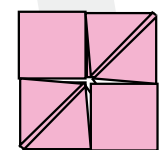


9. Insert a crease in the opposite side as well.

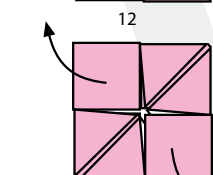
10. Fold according to the inserted fold lines.



11. Fold the other side in the same way.



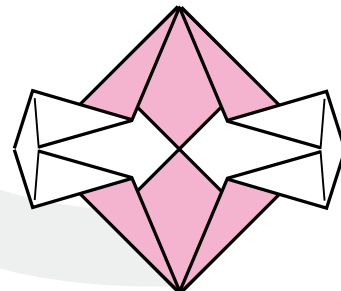
12



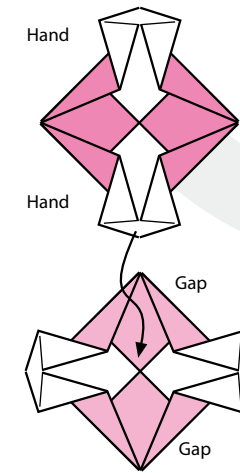
13. Open halfway.

### Unit completed

Make a total of six of these units.

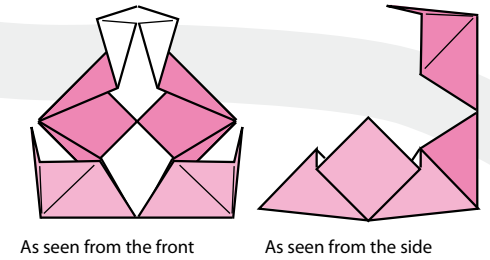


### Putting the units together



1. Slide a "hand" on one unit into a "gap" on another unit so that they fit together to combine the two units.

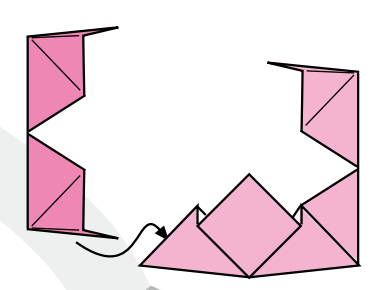
The two units should look like the diagrams when put together.



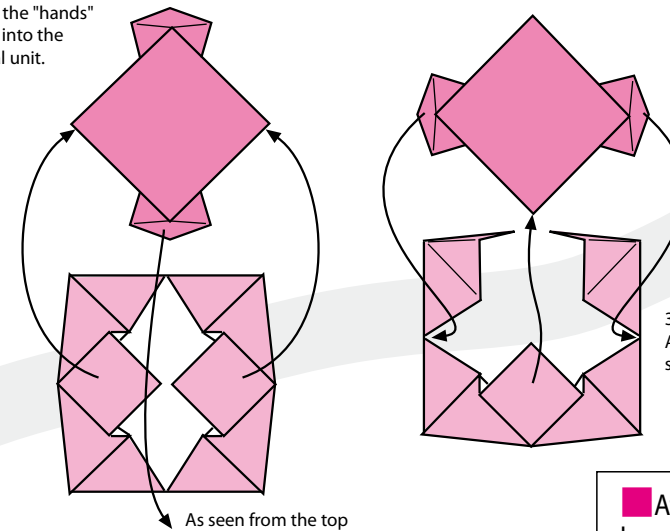
As seen from the front

As seen from the side

2. Add a third unit to the assembly in the same way.

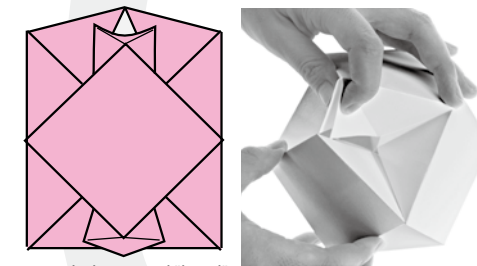
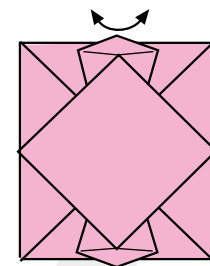


4. Rest the final unit on the top of the assembly, and slide the "hands" from the unit assembly into the open "gaps" on the final unit.



As seen from the top

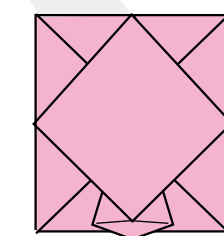
5. Grasp one of the exposed "hands" with your fingers and curve it inward as shown in the picture below.



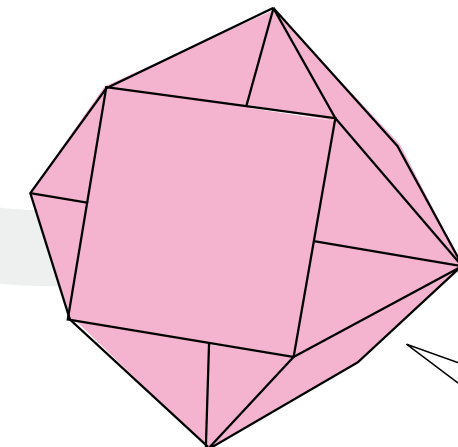
6. Push the curved "hand" into the "gap."

If you are not able to get the unit put together easily, apply glue to each "hand" that you insert into a "gap" to assemble.

### Finished



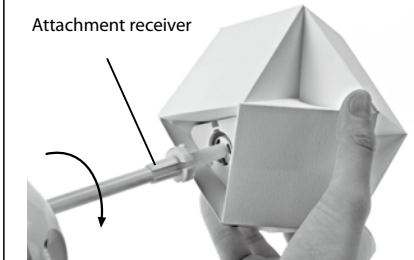
7. Do the same for the other exposed "hands."



### Attaching the assembled lampshade to the LED stand



Push the attachment into one of the indentations in the completed lampshade at whichever triangle you want until it gets caught on the end. Be careful not to push the attachment into the inside of the lampshade.

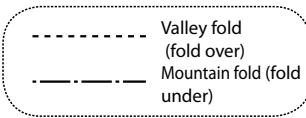


Insert the LED support column into the hole on the attachment, and push it in up to the attachment receiver. Then, turn the support column clockwise into the base unit.



# Celes

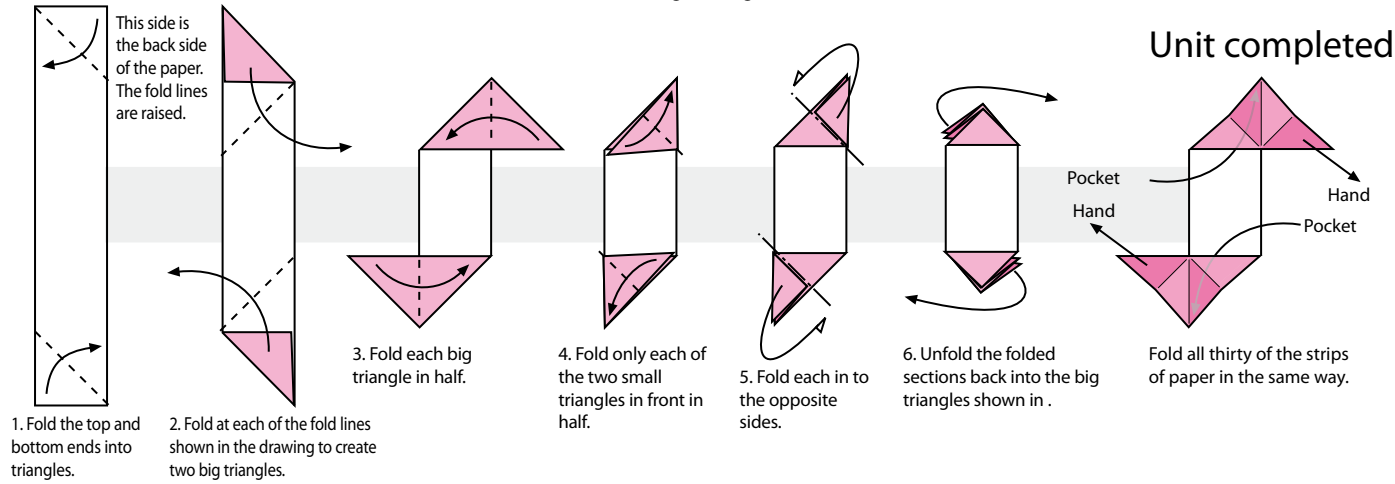
Time to complete: 1 hr. ~ 2 hrs.



This lampshade was named Celes from the word Celestial because it glitters brightly like the stars in the sphere. You will use thirty strips measuring 28 cm x 4.5 cm (1.1 in. x 0.17 in.) cut from the ten sheets of paper included in the supplement to make this lampshade. The paper comes with pre-inserted fold lines, so just fold the paper along those lines. Use the side with indented fold lines as the front side of the paper. The colored side of paper shown in the diagrams is the front side.

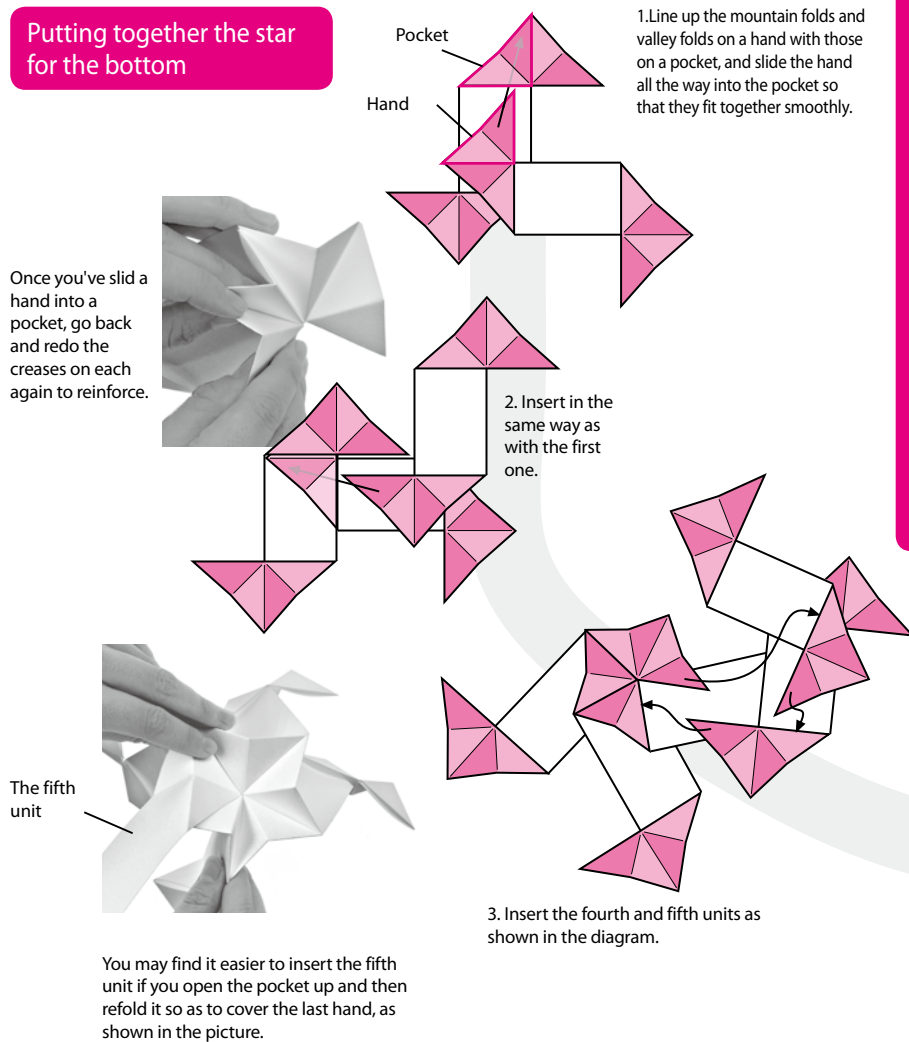
## How to fold one unit

Each sheet of the paper for this lampshade includes three attached strips. Please cut the three strips apart cleanly using a utility knife or other cutting tool before starting the origami folds.



## Putting the units together

### Putting together the star for the bottom



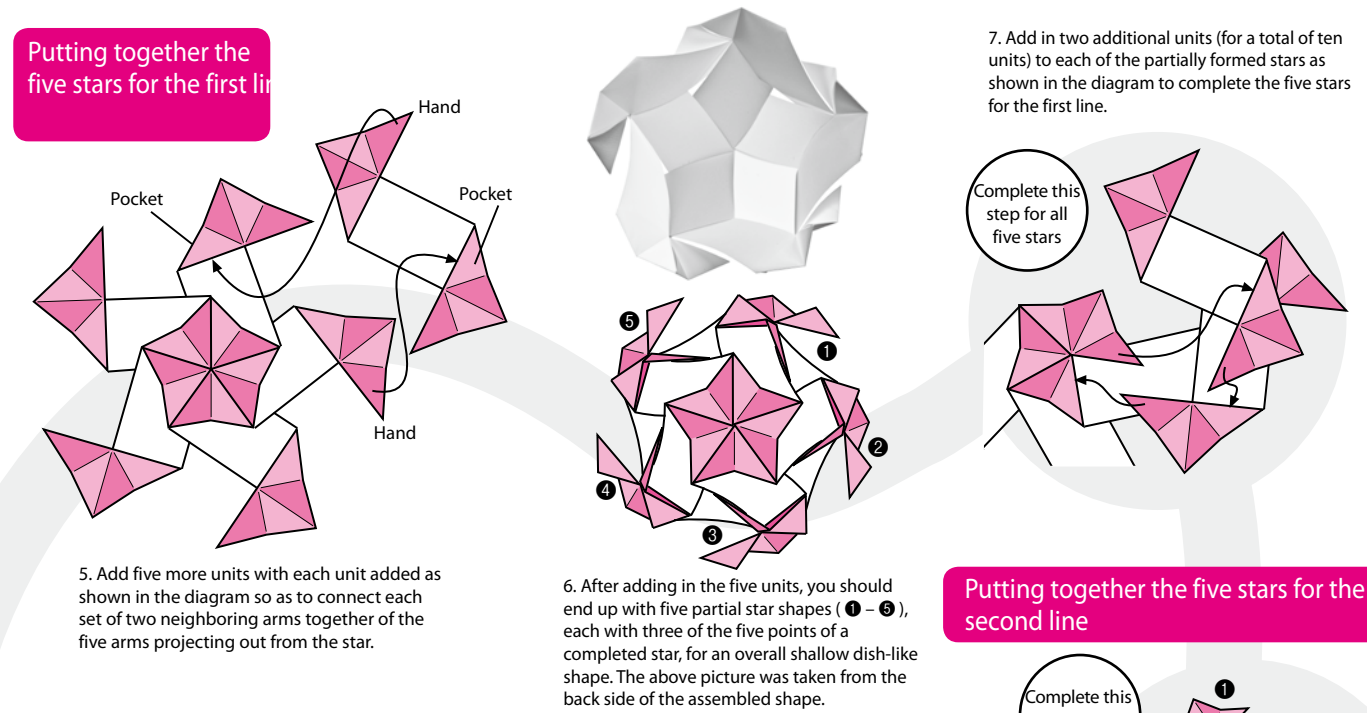
### Structural diagram for the Celes

At first glance, the Celes appears to be fairly complicated, but it actually has the simple structure as shown in the diagram. First, you need to create the first star for the bottom, then the five stars for the first line on top of that, and then the five stars for the second line on top of the first one. Finally, you just need to put together the very last star for the top to complete the lampshade.

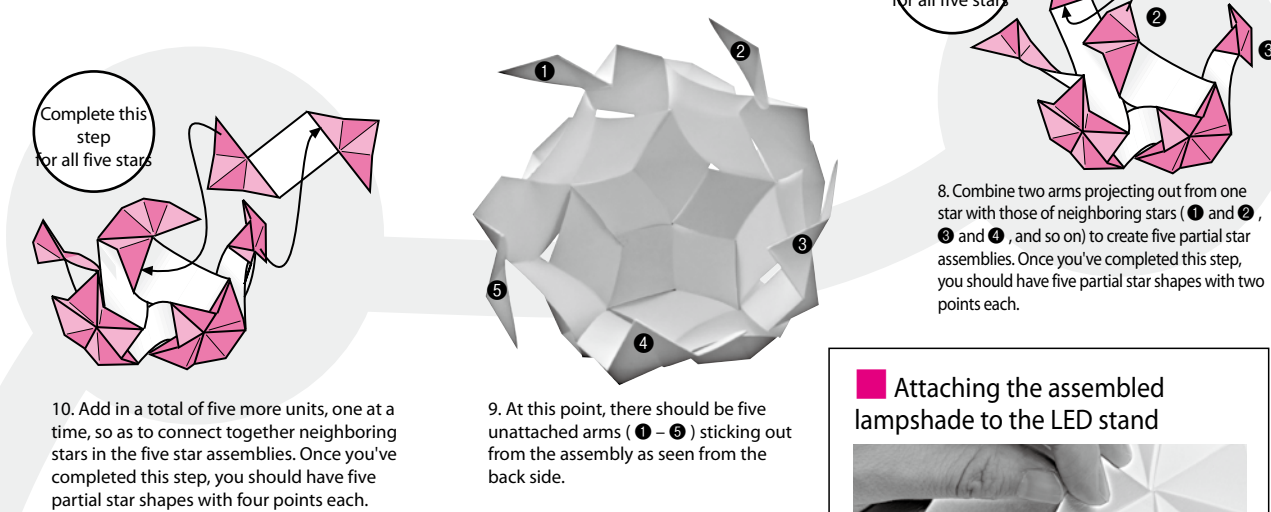


4. This star shape formed using five different units is the base structure for this lampshade.

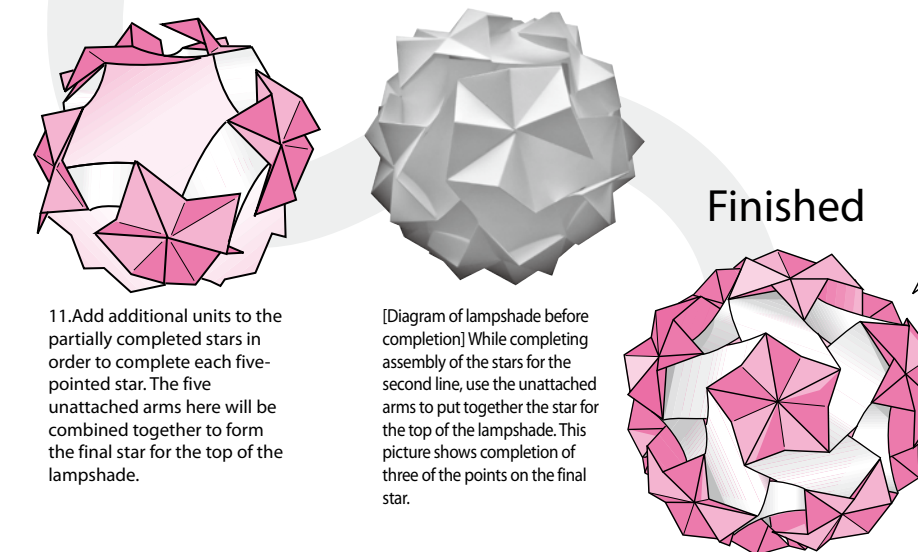
### Putting together the five stars for the first line



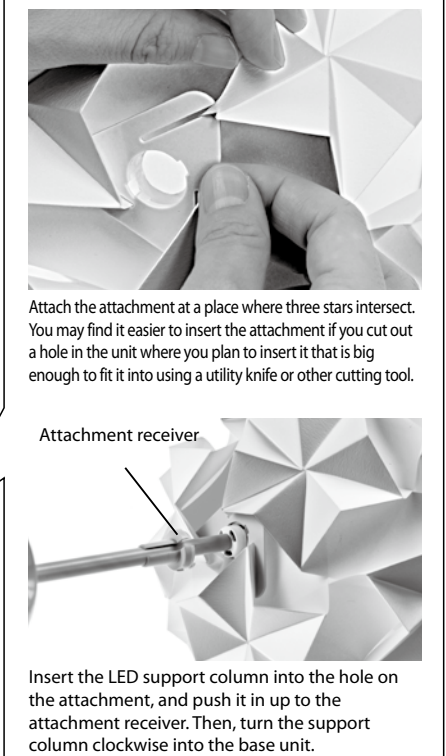
### Putting together the five stars for the second line



### Putting together the star for the top



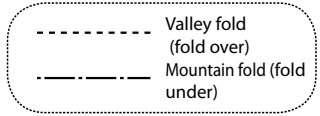
### Attaching the assembled lampshade to the LED stand





# Earthen

Time to complete: 1 hr. ~ 1 hr. and 30 min.



This lampshade was named Earthen because the pattern that emerges when the LED is lit up resembles earthenware. No paper is provided for this project, so please get six sheets of square paper such as regular origami paper ready if you intend to try making this lampshade. We recommended that you use paper that is around 15 cm x 15 cm (5.9 in. x 5.9 in.) because it will be easier to make with paper around that size.

## How to fold one unit

1. Fold the paper in half to insert a vertical fold line.
2. Fold in half the other way to insert a horizontal fold line.
3. Fold two opposite corners in toward the center.
4. Fold the paper in half in such a way that the folded parts are tucked inside.
5. Fold the two sheets together as shown in the diagram to insert a crease line.
6. Fold using an inside reverse fold.
7. Fold using an inside reverse fold.
8. Do the same on the right side.
9. Fold back the overlapping sections. Do the same on the back side.
10. Fold as shown in the diagram. Do the same on the back side.
11. Open as shown.
12. With the paper opened up as shown in the diagram, you can see that there is an indentation in the center of the paper (in the circled part). Push on this section from the back so that it protrudes out, and then pull the paper in along the fold lines.
13. Fold in toward the opposite side. The center part will protrude out as can be seen in the picture below.

In the above picture, paper with a darker color on one side was used to make it easier to tell between the front and back sides of the paper; however, in actuality, you'll achieve a better effect with the lighting using paper that is either white or a light color on one side.

14. Fold in toward the center.
15. Fold half only back toward the other side.
16. Repeat steps (12) to (15) to fold the opposite side.
17. Open as shown.

**Unit completed**  
Make a total of six of these units.

Unit as seen from the front side.

Unit as seen from the back side.

17. Open as shown.

## Putting the units together

Insert each hand into a pocket.

Hand Hand Hand Hand Hand Hand Hand Hand

## Attaching the assembled lampshade to the LED stand

Use the attachment for the Checkered Lantern. Cut away one edge of the protrusions in the Earthen lampshade to insert the attachment into the hole formed. Affix the Earthen lampshade and the attachment to each other using cellophane tape or the like, and then attach the assembly to the LED support column.

When the light is turned on, a complicated pattern will emerge as shown in the picture.

**Finished**