

WALKALONG GLIDER INSTRUCTIONS

Get the experience of piloting an aircraft without leaving your house. A walkalong glider flies on a wave of air created by pushing a piece of cardboard as you walk. You can create your own glider very easily using common household items.

Supplies

1. 1 piece of lightweight paper –wrapping paper, newspaper, phone book page, aluminum foil, printer or notebook paper (the lighter, the better)
2. 1 of the following – a flattened cardboard box, foam core board, cereal box (the bigger, the better)
3. Scissors

Build your walkalong glider

Video instructions are available.

A pattern is available at the end of these instructions.

1. Select your paper. The lighter the paper, the easier it will be to fly your glider.
2. Cut out a piece of paper 8 inches long and 2 inches wide.
3. Form the winglets - Fold up both short ends of the paper $\frac{3}{4}$ of an inch from the end at a right angle. It is important that the folded portion is at a 90 degree angle from the body of the glider.
4. Fold one of the long sides slightly up and the other long side slightly down. These folds should not extend into the winglets and should be at a 45 degree angle from the body of the glider.

Take your glider for a walk

1. Learn how to release the glider

- a. Hold the glider in the middle with your thumb and pointer finger.
- b. Hold it so the folded up edge faces you and the winglets are pointing up.
- c. Hold your arm up over your head as high as you can reach.
- d. Practicing dropping the glider until you find a technique that works for you and causes the glider to tumble slowly away from you while it falls to the ground. Try:
 - i. giving the glider a gentle downward push as you let go
 - ii. aiming the front edge straight out
 - iii. aiming the front edge straight down
 - iv. giving it a downward flick with your wrist
 - v. holding your hand still and just dropping it
- e. If you are having difficulties getting started, have someone else release the glider.

2. Hints for successful flying

- a. You need to fly in a place with very still air. Open windows and drafts from heaters or air conditioners can cause turbulence.
- b. Make sure that your winglets are at a right angle (stand straight up) and are the same size.
- c. Hold your glider parallel to the ground before releasing it.
- d. Walk with a nearly vertical piece of cardboard (the top edge tilted toward your body) keeping the glider near the top edge of the cardboard.



- e. If you want to make your glider fly higher, walk faster. That makes the air rush over the cardboard faster lifting your glider up more.
 - f. The bigger the piece of cardboard, the easier it will be to learn to fly your glider.
 - g. Keep your movements smooth.
 - h. Stay away from other people and objects.
3. **Ready, set, fly**
- a. With cardboard in hand, release the glider as high as you can.
 - b. When the glider nears the top of your cardboard start walking forwards and try to “catch” the glider near the top of the cardboard. It may take multiple attempts to get a successful launch.
 - c. Once you get the hang of flying your glider, experiment with your walking speed or the size or position of your cardboard to manipulate your glider.

Walkalong Glider Pattern

