

# U-FLY Paper, Inc.

Title: U-Fly Paper, Inc. Paper Airplane 01

Job Instruction: UF-PA-01

Version: 1.0

## 1.0 PURPOSE & OBJECTIVES

The purpose of this Training Module is to instruct employees how to build and test U-Fly's paper airplane, model 01.

After completing this training you will be able to:

- Build the paper airplane
- Test the paper airplane

## 2.0 KEY TERMS

| Term         | Definition   |
|--------------|--|
| Aerodynamics | The branch of mechanics that deals with the motion of air and other gases and with the effects of such motion on bodies in the medium. |
| Leading Edge | The front part of an airplane's wings that face towards the direction of flight.   |
| Pivot Point  | Point at which the paper is folded.  |

## 3.0 REQUIRED SAFETY EQUIPMENT and MATERIALS

| Safety Equipment | Materials                       |
|------------------|---------------------------------|
| N/A              | 1ea - Piece of 8.5" x 11" paper |

## 4.0 PRERQUISITES

None


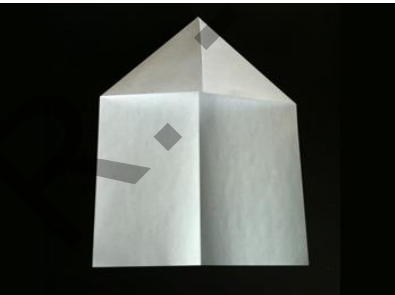

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## 5.0 PROCEDURE

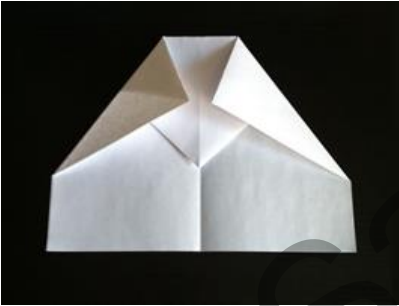


| TASK  | PICTURE  | KEY POINTS  | REASONS  |
|---|--|---|--|
| 1. Fold a standard piece of paper in half vertically and crease.  |    | Make sure edges are even and crease has been made with firm pressure  | This helps to assure perfect alignment of edges. |
| 2. Unfold and position paper so that the crease is vertical and fold the top two outer corners inwards so that they meet along the middle crease. |   | Corners should not overlap in the center  | Improper folding may cause flight instability.   |
| 3. Fold the point made in the previous step down using bottom edges of previous folds as the pivot point.   |  | Flaps should be tucked under this fold and tip should be aligned with vertical crease. Paper should look somewhat like the back of an envelope. | Secures initial folds under paper.               |

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| TASK  | PICTURE  | KEY POINTS  | REASONS  |
|---|--|---|--|
| 4. Fold the two top corners created in the previous step to the center crease.  |    | Points should be about 2/3 of the way down the center crease flap.  | Allows room to secure points.                            |
| 5. Fold up the point that has been covered in the previous step so that it secures the flaps against the crease.                                  |    | Point should be brought up far enough to adequately secure the 2 flaps.                                   | This will secure two flaps and aid in aerodynamics       |
| 6. Fold the paper in half (along the vertical crease you created in Step 1) so that all the folds made in the previous steps are facing outwards. |  | Assure folds are facing outward. A small triangular fold should be visible along the bottom of the plane. | Helps to secure folds and prepares development of wings. |

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| TASK   | PICTURE  | KEY POINTS  | REASONS  |
|--|--|---|--|
| 7. Fold both side flaps down to the bottom so that the wings are perfectly aligned with the bottom of the airplane.  |    | Assure that wings are perfectly aligned with bottom of airplane | This will enable the wings to operate at full capacity air speed |
| 8. Unfold the wings slightly so that they are perpendicular to the body of the airplane and form a flat surface next to each other.  |    | Wings should be perfectly flat                                  | This will aid in optimal flying distance                         |
| 9. Test your airplane. Start with a gentle toss to see how your plane glides through the air. Experiment with more aggressive throws to see how high and far your plane will travel. |  | Assure area is clear when experimenting with throws             | You don't want to hit something or someone with your airplane.   |

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| Trainee Information  |   |
|--|---|
| <b>Name (Print):</b>   | <b>Employee ID:</b>   |
| Training Phase:<br><input type="checkbox"/> Initial Training<br><input type="checkbox"/> Qualification | Training Module Title: U-Fly, Inc. Paper Airplane 01<br>Document Number and version: UF-01-PA-01, V 1.0 |

| Step | Step Description  | Performed Correctly? |    |
|------|---|----------------------|----|
|      |   | Yes                  | No |
| 1    | Fold a standard piece of in half vertically and crease.   |                      |    |
| 2    | Fold the top two outer corners inwards so that they meet along the middle crease.   |                      |    |
| 3    | Fold the point made in the previous step down to the crease so that the flaps are tucked under this fold.   |                      |    |
| 4    | Fold the two top corners created in the previous step to the center crease so that the points are about 2/3 of the way down the center crease flap. |                      |    |
| 5    | Fold up the point that has been covered in the previous step so that it secures the flaps against the crease.                                       |                      |    |
| 6    | Fold the paper in half along the vertical crease previously created so that all the folds are facing outwards.                                      |                      |    |
| 7    | Fold both side flaps down to the bottom so that the wings are perfectly aligned with the bottom of the airplane.                                    |                      |    |
| 8    | Unfold the wings so that they are perpendicular to the body of the airplane and form a flat surface next to each other.                             |                      |    |
| 9    | Test airplane. Did airplane fly?  |                      |    |

| Comments                     |  |  |
|------------------------------|--|--|
| <input type="checkbox"/> N/A |  |  |
| Did the Trainee pass?        |  | <input type="checkbox"/> Yes <input type="checkbox"/> No |

| Trainer and Trainee Verification |                  |             |
|----------------------------------|------------------|-------------|
| <b>Trainer</b>                   | <b>Signature</b> | <b>Date</b> |
|                                  |                  |             |
| <b>Trainee</b>                   | <b>Signature</b> | <b>Date</b> |
|                                  |                  |             |