

# Origami Club

The Origami club of the mathematics department is now in its fourth year. It is open to all who are interested in paper folding, irrespective of the level of expertise. We meet in room 220 (Math Center) in the main math building at 2.00 PM on Thursdays. **Start date September 4-th** (I had said August 28-th before but realized afterwards that school starts late this year.) . I select one design each week and provide folding diagrams. The practice paper is free. The origami paper can be bought for 10 cents a sheet or you can bring your own paper. I have a folder with all the previous designs we have folded. You can select any one of them to fold as well.

Below, you will find a reasonable description of how the complexity of Origami folds is determined. This should allow you to judge where you stand. You can send me an e-mail at mit-tal@math.arizona.edu if you are planning to attend describing your level of expertise. This will allow me to better choose models that will be of interest to all.

I have not yet learned Adobe Illustrator and hence can not post a file describing Origami symbols. I am working on it and one of these days, will succeed. In the meantime, you can look at any Origami book which will give a list of basic symbols. Hope I will see you there!

## Guidelines for Complexity of Origami Models

There is no uniform method of indicating the complexity of the folds. A five star method is quite common. It will be equivalent to the following word categories with the starting point listed as zero stars. Each successive category is built upon the knowledge of the previous categories.

Learning to *pre-crease* is a valuable asset. It can reduce the complexity of the diagrams and the models. However, it takes quite a bit of experience and precise folding in order to develop a pre-crease diagram on your own. I will give pre-creases whenever possible. The way to do on your own is to fold the model precisely, unfold gently, open it all up, and then *read* the pre-creases that will simplify the model.

### Starting Point

Learn to *read Origami*. Master basic symbols and fold some basic bases such as *preliminary*, *waterbomb*, and *bird* base.

### Simple

Some familiarity with origami terminology and materials.

**Examples:** Jumping frog, sailboat, water bomb, Tumbling Toy.

### Low Intermediate

Know how to fold a bird base from memory and be good at inside and outside reverse folds. Know basic sink, and squash fold. Know *rabbit's ear*.

**Examples:** Flapping bird, crane.

## High Intermediate

Comfortable in folding double rabbit's ear, crimps, double sinks, closed sinks, stretching a base and color change.

**Examples:** Jack-in-the-box, Montroll 3-star models

## Complex

*Collapse* moves where many creases come together at once. Commonly very sensitive to folding errors.

**Examples:** David Brill's Halloween Witch

## Super Complex

Anything that is harder than all of the preceding. Usually, the instructions need de-coding. Needs deep knowledge of the mechanics of the model.

**Examples:** Fred Rohm's waterwheel

And finally, if you get a chance, hear Robert Lang give a fascinating talk at the following website.

[http://www.ted.com/index.php/talks/robert\\_lang\\_folds\\_way\\_new\\_origami.html](http://www.ted.com/index.php/talks/robert_lang_folds_way_new_origami.html)