

The Design

This wonderful origami fir tree model is one among many holiday tree models designed by Francesco Guarnieri. Many models in origami are designed to be folded from a single uncut square. However, while any simply connected polygonal shape can in theory be created from some uncut square, this restriction is often impractical from a physical standpoint due to obtainable paper sizes and thicknesses. This tree model was designed to be folded from multiple uncut regular octagons of varying sizes, with one octagonal sheet for each layer.

The origami angel tree topper by Neal Elias was folded from one uncut square of foil paper. A variety of models from different designers hang from the tree as ornaments, including several butterflies by Michael LaFosse, 4-piece modular spirals by Tomoko Fuse, 6-piece modular Japanese Brocades by Minako Ishibashi, a Baby Dragon by Daniella Carboni, and, of course, traditional origami cranes.

The Model

To fold the tree, OrigamiT purchased multiple rolls of heavy-weight foil gift wrap and cut them into 9 octagons of different sizes, ranging from 11 inches to 60 inches across. The largest required 2 sheets of gift wrap to be taped together. This tree was originally designed to be assembled using only folding, but due to the sheer size of this reproduction, the paper is not strong enough to hold itself under its own weight. So, we have used a cardboard base beneath the trunk and tape to help our tree keep its shape and stability. The ornaments were hung using tape. This model took a week to produce.

The Club

OrigamiT, MIT's origami club, is composed of those in the MIT community interested in the art, mathematics, and science of folding. We exist to promote, practice, and teach origami folding, analysis, and design. We hold weekly meetings and larger events throughout the term, all of which are freely open to the greater MIT community. Come fold with us!

Deck the tree with ORIGAMI!



From top left to bottom right:

- 1) The angel tree topper.
- 2) OrigamiT members fold origami ornaments for the tree.
- 3) The completed tree stands at a little less than 5 feet tall.

