## Logical Progression

This puzzle was designed to have a logical solution. With a little insight, the entire puzzle can be assembled piece by piece without any guesswork. Some steps you might find along the way include:

1) From the orientation of the pins and holes, you can determine that the pins must lie in "layers" and, for example, the pins in layers 1 (bottom), 2 and 4 (top) go from left to right while in layer 3 they go front to back.
2) From examining the pieces, you can now place constraints on which layers each piece can occupy and what orientations it can have.
3) Each piece has four cells (cubes), one pin and three holes. Each layer must have sixteen cells and four pins.

4) The bottom layer seems to constrain the most pieces (with the layer above having parallel pins), so try to fill it first. By observation, some pieces must have certain cells in this layer and others can fill out the rest of the 16 cells and 4 pins.
5) The pin of each piece constrains the position of that piece in the direction of the pin.
6) At points along the way some pieces go only one place. Some cells or pins can only be occupied by one piece.

The following is an assembly sequence in case you just want to get it assembled. It has little relation to the way you are likely to solve it by hand.


