

Minuet Solution

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<http://georgehart.com/puzzles>



The thirty parts lock together to make a symmetric orb. The image above is a guide. Be sure every piece is facing the same direction. Either clockwise or counterclockwise works, but all must be the same. The parts lock end-to-end as shown. There is a lock above the center of each piece. Note that there are 5-sided openings and 3-sided openings, but no 4-sided ones.



The first step is to make a pentagon, locking the arms of five pieces into a cycle. Then make a second pentagon that links with the first like two links of a chain, as shown. Note that if pentagon A is outside of pentagon B on top, then it will be inside on the bottom (and vice versa).



Continue adding pieces one at a time. You can add a piece under any existing joint as indicated above, then continue it (with four more parts) to make a pentagon. In the end, there are six pentagons and every pair of pentagons links like two links of a chain.

The last piece can be wiggled in to place if the joint above it is first temporarily opened. No force is required. It is a dexterity challenge to assemble, but holds together firmly after the last piece is inserted.