"The Color Cross Cube™: A Multiplication Toy for Children" VCU #13-080

Applications

- A toy to teach multiplication
- A toy to teach color mixing
- A customizable nightlight

Advantages

- Can be used to teach multiplication to anyone who can count
- Uses a grid based method founded on Cartesian Product
- Low production cost

Inventors

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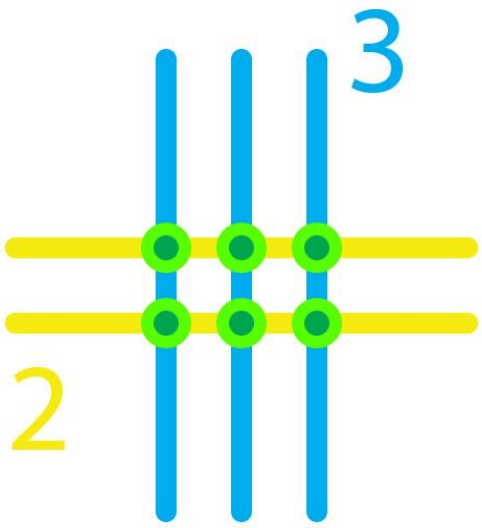
Market Need

An important tool for teaching any mathematical process is to provide a means to visualize a problem. This allows the learner to use existing skills to work through higher-level concepts. Using toys as educational tools is especially important for young learners as toy-based devices encourage frequent use and may be less intimidating than other teaching methods. Many existing toys are designed to reinforce multiplication skills and the memorization of times tables, rather than teach the principles behind multiplication itself.

Technology Summary

The technology is a three dimensional, experiential learning tool that allows children to use counting to solve multiplication problems. This toy is based on the Cartesian product principle, which instructs learners to create a grid using parallel lines to solve a problem. Aside from teaching multiplication, this toy can reinforce counting skills and shape matching and can be used as a colorful, customizable nightlight. Due to the simple design, this toy would be appropriate for pre-school children as well as those first learning multiplication. Alternative learners of any age could also benefit from its use. This toy is suitable for both school and home environments.



Technology Status

A prototype has been developed.
Patent pending: US and foreign rights available.
This technology is available for licensing to industry for further development and commercialization.