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Jack McGuinn, Senior Editor

hen discussing the thinning of this country's potential manufacturing workforce, it is often maintained that technical training opportunities should be made available to grade schoolage children who express interest. Get their attention while they're young and impressionable, the thinking goes — and hope their parents don't talk them out of it.

And then there are those individuals of any age, young and old, who simply like to work with their hands — and brains — to make things.

And one more thing: it's almost Christmas.

What most reading - and writing - this probably didn't know is that since 2014 a Ukrainian-based startup—UGEARS—has been striving to satisfy the three niches identified above: education, the hobbyist, and great gift ideas. What's more, the company has an established presence back here in the USA (ukrbridge@gmail.com; and https://ugearsmodels.com/catalogue/mechanical-models.html). With an apparently designer-intensive makeup of engineers, UGEARS was formed "to create their own production of modular mechanical models, in which everything is REAL!" At this writing "more than 17 models" are available, with more on the way.

UGEARS models are "self-propelled, mechanical wooden model assemble kits" intended to "introduce parents and children to a cool world of mechanics and to bring families together, as a team, working on assembling 3-D puzzles."

Can World Peace be far behind?

Many design models replicate everyday mechanisms and rolling stock while others "bring to life the imaginative, elegant and even whimsical designs" of UGEARS staff.

The company believes the fun is in the building—although the faithfully engineered models undergo "meticulous product testing and quality control" - and it shows. For proof, check out the UGEARS catalog on their website (see above).

Indeed, UGEARS believes they "give people what they want — the feel of real motion mechanics that they can build and bring to action by themselves." Some of the models are "sophisticated versions of real-life mechanisms," while others reflect not only the imaginative but also the whimsical bent of UGEARS colleagues. According to the company —

- The models are "recyclable, eco-friendly wood materials" (read plywood).
- Simple assembly (defining "simple" would be helpful here); no glue needed. Can be assembled at home on a dining roomtype table.
- · All that's needed are your own two hands, patience, and assembly instructions.
- And one bottle of Stolichnaya (kidding!)

All UGEARS models are made from "high-quality plywood boards, using precision-cut parts." A "high-accuracy, laser cut method" is used "to ensure quality." Detailed, step-by-step instructions are included with each kit.



UGEARS claims each creation "helps people to understand the principles of mechanics" through the self-assembly of motion models. The models also "contribute to developing logical thinking, enhancing attention and concentration skills as well as improving attention to detail skills."

Here are just three examples:

Hurdy-Gurdy. The Hurdy-Gurdy model was successfully launched on Kickstarter in July, 2017. Inspired by the art of Celtic and Scandinavian Medieval craftsmen and enriched by smart engineering of the 21st century, the Hurdy-Gurdy is a triple-threat mechanical model kit that is all-in-one: model for self-assembly, toy (gift), and fully fledged musical instrument. The Hurdy-Gurdy plays dancing melodies that bridge medieval times and the present day.

A newer addition to what UGEARS refers to as its "Mechanical Town" collection is the Rail Manipulator (pictured). The Manipulator is a purely utilitarian model, which by no means makes it less entertaining than the other models in the range. Like the rest of the UGEARS models, the Manipulator is designed to make sure the fun goes on after the assembly is completed. With a number of extras that come in the box, the model guarantees hours of an exciting new pastime.

Speaking of extras, with the Manipulator itself, you also receive two sections of rails, the shed under construction, two shipping crates with doors, crane, freight carriage, and five characters.

The Robot Factory — officially known in Mechanical Town as the Mechanical Wonder Works - is very much what both of its names imply: a model of a factory that produces robots (Made of wood - and isn't that ironic?) and undoubtedly, a wonder of wooden mechanics. The model features a steampunk style workshop with a fully functional assembly line to help you build your robots: arrange the parts of the robot in proper places along the line, wind it up, push the button, and - voila! your automatic assembly line produces a mechanical wooden robot, all new and ready to serve whatever ingenious game plan you have in mind. **②**