Modular origami animals

Today you will learn how to make a modular transformation of the star ninja origami! It's a fun activity that gives you an epic result. It's relatively easy if you're keeping a close eye on the steps shown. There is only one type of item you need: 8 pieces of square paper that are all the same size (best of all about 75mm x 75mm or 150mm x 150mm). WARNING: Don't throw modular origami ninja star conversions at anyone! Place the paper in front of you so that one side is on top, one side on the left, one side on the right and one side at the bottom. (If you use origami paper, place the white side up.) First, you need to fold the top right corner of the paper into the bottom left corner and make a crease. Once you have turned the paper, there should be a diagonal fold in your paper. Make sure to leave the paper in the orientation it was earlier as soon as you deploy it. (Don't forget to leave the white side up if you have origami paper.) This time, you need to fold the top left corner into the bottom right corner and make a crease. Just as you have made the step 3, you have to unwrap the paper again. There's got to be another diagonal fold. Make sure to still leave the orientation alone. (The white side should still be if origami paper is in use.) Take the right half of the paper and fold it evenly on top of the left half of the paper and make a crease. Just like you did on steps 3 and 5, turn around the paper. Now there should be a vertical fold in the center of the sheet. Leave the paper in the orientation it's already in. (Make sure the white side is still up if you use origami paper.) Take the top right corner and line it evenly on a vertical fold in the center of the piece of paper and make a crease. Just like you did in the previous step, take the top left corner and line it evenly on the vertical fold in the center of the sheet of paper and make a crease. Just like you did before, take the right half of the paper and fold it evenly at the top of the left half. There should already be a crease from earlier, so it should be easy to complete. Place the paper so that the side with which you are stacked in the corners is turned to the left, and the paper hole - at the bottom. Take the paper and press the top right of the sheet inside and press down to the surface to make the creases. Now each side has to be slanted. Repeat 1-12 steps 7 more times. You have to end up with 8 total parts that are all identical to each other. (They can be different colors if you want them.) Grab the two parts that you have done and uns off them so that the hole to the bottom and that the right side has two legs that are separated from each other. With each piece in position from the last step, take the piece to the right and insert the left side of it into two legs on the left side. Make sure the right piece is completely lined up and pushed all the way into the left side legs. the piece shouldn't hang around at the top of the left side. If so, pull the right piece down some until it is more. Notice how your left side has two sharp tips at the end of your leg. You have to fold/ shove these tips into the hole of the right side at the top. (It should be a pocket where the feet are right.) Make sure you make two folds for each of the tips. Grab one of your remaining pieces and unsorthodog it as you did for two parts in step 14. The previous right piece must now act as a new left piece. Repeat steps 15 and 16.All you need to do for the rest of the position pieces each next piece as you did for steps 14 and 17. Then you just need to follow steps 15 and 16. Keep doing this until you use all your parts. Remember that every old right piece becomes your new left piece. (See Step 19 to explain when you attach your 8th piece.) On the 8th piece that you connect, the piece protruding as the right part should be the part you used for your first left piece. This is because the structure loops back onto it on its own to make the octagon shape. Once you've finished attaching all your pieces to each other, you've finished the project as a whole. To convert the modular conversion of an origami ninja star, you just have to push each of its sides inside. To turn it back, you just have to pull each side out. Remember not to throw your creation at anyone! Enjoy! Nobel Prize-winning economist Ken Arrow had a brief, almost poetic way of describing technological advances: The process of innovation is almost by definition filled with uncertainty; It's a exploration journey in a foreign land. Indeed, this mysterious area can be considered as a mountain landscape with soaring peaks and deep valleys, peaks corresponding to breakthrough inventions, abysses representing gloomy failures. We have recently mapped this landscape in quantitative terms, drawing on more than 200 years of U.S. patent office data. In particular, our study explored how the innovation process depends on the number of components of the invention and the degree of their interdependence. We have confirmed the long-anticipated trade-off between the predictability of achievement and their ultimate importance. And we found evidence that companies tend to over-cost predictability. We started with a simple premise: Inventions are the result of a combination of components (physical things or ideas) in new and useful ways. As a crude simplification, one would think of the car as combining various pre-existing parts, including the steering wheel and bike gear; wheels, the a decrease and the overall structure of the horse car; and the internal combustion engine. The interdependence of components has a huge impact on the pace and complexity of the Process. In modular designs, changing one component has little impact on the performance of others or on the system as a whole. Example Example Walkman, which Sony engineers first developed from a wide range of standard, interchangeable parts. But when components are highly interdependent, a change in one can dramatically affect the performance of the other, and these effects can cascade, causing the entire system to fail. Consider the printer's jet ink. First proposed by Lord Kelvin in 1867, it took more than a hundred years to become commercially viable, even after millions of dollars of investment by Stanford researchers, Sperry Rand, IBM and Hewlett-Packard. The culprit: the heavy interdependence of components, including ink chemistry, physical layout and composition of resistors, and so on. When visualizing, the technology landscapes that the printer's ink jet and walkman inhabit look very different. Think of every peak in the technological landscape as a concrete invention in the field of technology, in this case consumer electronics. The terrain of the Walkman resembles Mount Fuji, with its gentle slopes steadily rising to one peak that researchers can identify, approach, and climb with relative ease. The landscape of the ink printer is more similar to the Swiss Alps, with sharp peaks separated by deep valleys, making it difficult to view, much less reach, the high points of the area. Our analysis of data from the Patent Office, which involved about 350 billion calculations concerning the impact of each invention and the number and interdependence of its components, highlights the benefits of climbing in the Alps. It is true that modular designs can lead to epochal inventions; after all, Mount Fuji, though lower than the Matterhorn, is still an impressive peak. But overall, we found that while interdependent components make innovations much more uncertain and difficult, their use often leads to breakthrough products. Simply put, passing rough terrain is a high risk, high-impact activity. Our findings call into question the tendency of many companies to be highly modular designs. While such projects make product development more predictable, many companies appear to be using modulization techniques to the point where they undermine innovation, reducing opportunities for breakthrough advances. In addition, the predictability inherent in modular approaches increases the likelihood that competitors will develop similar products. Our research shows that intermediate levels of interdependence produce the most useful inventions. Therefore, we recommend that companies use a conditional approach to product development. Engineers should look for ways to make technologies that demonstrate extreme interdependence more modular, perhaps supporting standardization efforts. But after a certain point of modularity, lab directors should encourage inventors to tinker with more interdependent technologies to maximize the likelihood that Happens. Changing the modularity of components is just one way to change the technological terrain; we are now being effectiveness of other approaches as well. Working with a large Fortune 500 corporation and two high-tech startups, for example, we are investigating whether long-term investments in fundamental or applied science can reduce the risks of investing in a highly interdependent component. Further research will help identify the procedures that companies should use to move from highly interdependent landscapes to more modular or vice versa. The overall goal is to enable organizations to sculpt their technological terrain in accordance with their competitive strengths. 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