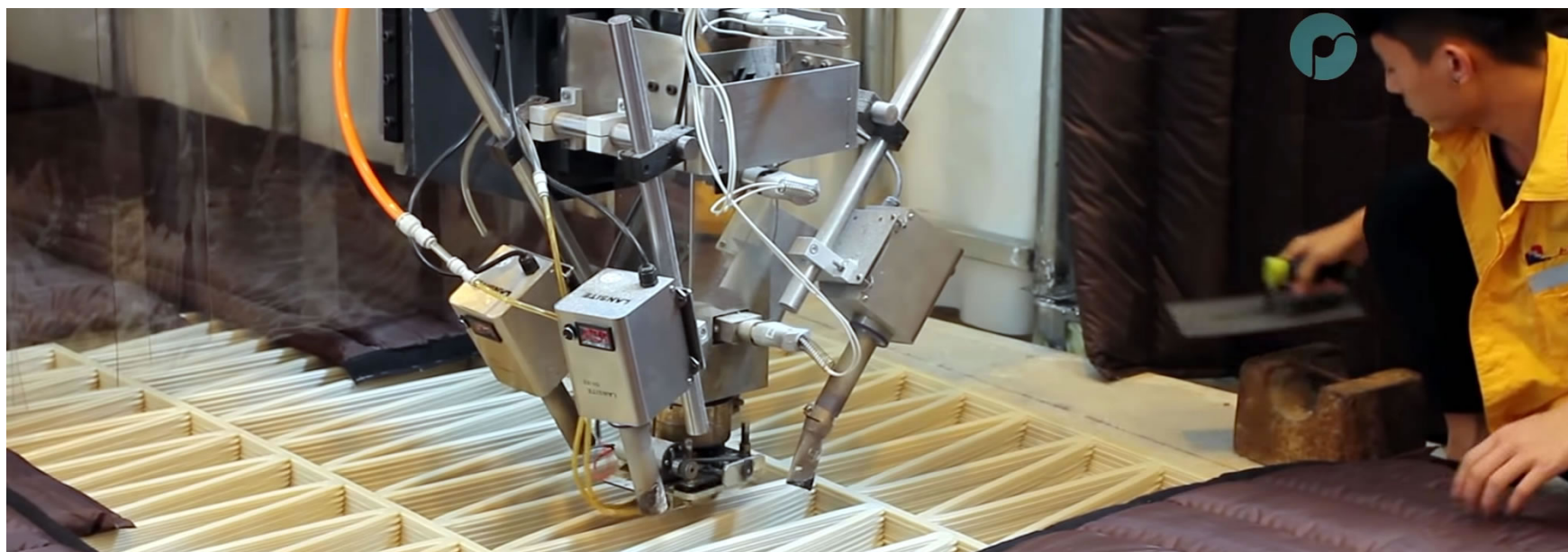




CHINA PRINTS A BRIDGE

A 3D-printed pedestrian bridge has opened in Shanghai.

THE BRIDGE IS 3.8 M WIDE, 1.2 M HIGH, AND WEIGHS 5,300 KG. THE PRINTING PROCESS TOOK 35 DAYS.

Our magazine is committed (<https://magazine.sibur.ru/ru/2/article/cover-story/generation-change/>) to keeping you up to date with new technology, and this includes additive manufacturing. No longer considered as a technology of the future, 3D printing is now in use around the world. Products manufactured with this technology have a wide range of applications, ranging from automotive parts to complex medical prostheses. One of the market leaders today is China, which has shown itself to be highly motivated to push forward with 3D technologies.

According to ResearchMoz's report, by 2016 the additive manufacturing market in China had seen a 10-fold increase from 2012, and Chinese experts are now busy exploring new ways to apply 3D printing. At the beginning of the year, the world's longest 3D-printed plastic bridge was opened in Shanghai. Located at Taopu Smart City, a high-tech park, the pedestrian bridge is 15 m long and has a load capacity of 250 kg per sq m. The bridge is 3.8 m wide, 1.2 m high and weighs 5,300 kg. The printing process took just 35 days.



It took 35 days to print the pedestrian bridge.

THE BRIDGE IS PRINTED USING ACRYLONITRILE STYRENE ACRYLATE (ASA), WHICH MEETS ALL THE REQUIREMENTS FOR STRENGTH AND DURABILITY.

The project is the result of a partnership between Shanghai Mechanized Construction Group Co. (SMCC) and Polymaker, a manufacturer of 3D printing materials. Shenyang Machine Tool Group were tasked with producing a 3D printer capable of printing at the required scale, while Coin Robotic supplied the extrusion system and printing platform. The total cost of the project ran to just over USD 2.8 million.

The bridge was printed using acrylonitrile styrene acrylate (ASA), which meets all the requirements for strength and durability, as well as being resistant to humidity and high temperatures. Moreover, the specialists used glass fibre to strengthen the structure. According to the builders, the bridge will be able to last for up to 30 years.

Shanghai authorities believe that the project will help to increase the popularity of 3D printing in urban infrastructure projects.

Photo: youtube-канал CGNT, youtube-канал Polymaker.