

Wheelchair from a 3D-Printer helps Luisa the dog

Press Release



Multec developed a wheelchair with a 3D-Printer for a dog without front legs

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Female dog Luisa was born without front legs and is now finally conquering the world with the help of a wheelchair from a 3D Printer. The pup could only move by crawling and hopping without the walking aid.

Florian Rapp, Employee at 3D-Printer manufacturer company Multec (masters student in auto motive engineering), found out about the pup that could merely crawl through the proTier e.V. organization. Together with Karin Bufe (Medical masters student) an undercarriage with a printed chest plate was developed which meets the specific requirements of a growing dog: anatomically adaptable and adjustable.

For dogs with similar handicaps Multec provides the design as an open source kit available to the public.

Tough Start for Luisa

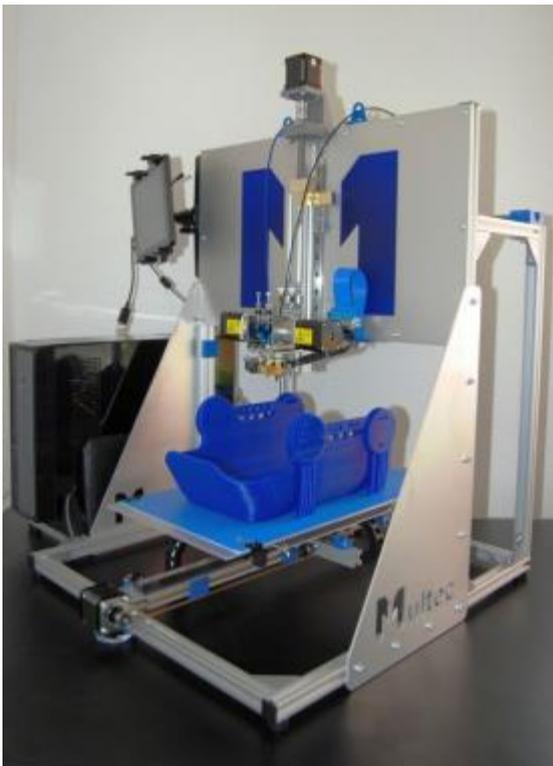
Luisa had an extremely difficult start in her life. Luisa's mother lived as a stray dog in Italy and gave birth to the little pups on a property where they were not welcome. Members of proTier e.V. saved the mother and the five pups from being put to sleep and then realized that one of the pups had little stumps instead of front legs. In Germany, the dog family was picked up by a foster animal protection organization that allowed them a safe and normal life.

A dog wheelchair that grows

Touched by the fate of little Luisa, Petra Rapp and Manuel Tosché, a married couple that are experienced dog owners themselves, immediately started working on development and implementation of a driving and walking aid. The anatomical chest plate and supporting components represented the ideal application for the production using the 3D printer: low production cost, lightweight construction, quick and easy to print. A particular challenge was to make the undercarriage in such a way so that it supports the body of a puppy and an adult dog. Luisa should become accustomed to her replacement legs as early as possible.

Depending on Luisa's growth, the wheelchair can be customized with new printed parts. The durable yet lightweight chest plate was printed with the large printer Multirap M420, since the puppy will grow into a large dog and therefore the necessary strength for fast and dynamic movement had to be ensured. The engineering team of Multec developed an overall design that is now available as an open source to anyone who wants to help a handicapped dog. The construction plan, the print data and parts lists can be downloaded from the Multec website.

There are more handicap aids developed for Luisa and the parts are mainly produced using 3D printers. These include a carrying aid and protection for the stumps.



Luisa's quality of life is greatly increased

The lively Luisa is full of joy and happiness. Like any small dog she loves to play and loves her cuddly toys. Despite her physical limitation, she is a very cheerful dog and very energetic. Before she could only move by crawling and hopping, but now she is exploring new places outside and inside the house on her own. Luisa is training and exercising with her wheelchair, gaining agility, independence and strength in her back legs on a daily basis. Luisa has now also found a loving and caring home: Family Rapp and Tosche have adopted the puppy. Here Luisa may soon run and have fun with her new dog friend Hopi. For more info's about Luisa and her progress, you can visit www.luisas-blog.de

About Multec

Multec GmbH specializes in the development and manufacturing of 3D printers. 3D-Printers from Multec are known for their constant precision and construction stability.

The founding team Petra Rapp and Manuel Tosche, both mechanical engineers, set high standards for their own developments and use components from the professional engineering field. The components are mainly from Germany, if possible, manufactured and produced in the region. Multec is also working on the development of environmentally friendly and healthy materials and plastics. The 3D Printers of the series Multirap are multi-functional and extensible. They provide the user with additional applications such as engraving and milling. The distribution of filament and printer supplies is another field of work of Multec GmbH, based in Riedhausen. Founded in 2011 as a private company, operating since 2013 as the Multec GmbH. 2014 Multec won second place in the Founders Award of the Swabian, an important distinction and award in the region.

Text- and Picture download (digital Press kit)

<http://www.aha-kommunikation.de/22701/53826.html>

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