

Arbutus Drill Cover



Product Design Students at **Kwantlen Polytechnic University (KPU)** bring their eyes for design to a humanitarian engineering project that sends low-cost surgical drills to Nepal after a massive earthquake.



The Arbutus Drill Cover, in development by Arbutus Medical since January 2013, turns accessible hardware store power drills into **sterilized, effective** and **affordable surgical tools**.

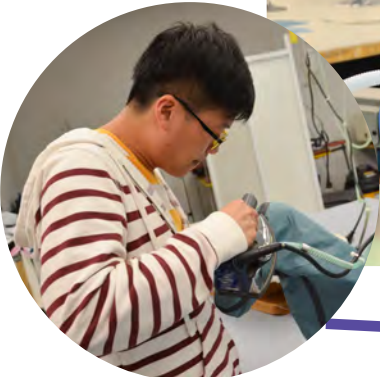
Arbutus Medical

and a UBC team turned to KPU's design program after learning they specialized in **soft products**.



What Did They Do?

For six weeks, third-year product design students at KPU's Wilson School of Design produced 86 iterations of Arbutus' covers to develop the best possible design for the **life-saving idea**.



How Did They Do It?

The design students helped to transform hardware store drills into sterilized, effective and affordable surgical tools by hand crafting cases.



The covers were developed to be **cost-effective** in remote or disaster-stricken areas where high-tech and expensive surgical tools are often not available, accessible or affordable.



Many considerations went into the final design including:

Ease of Use

Waterproofing

Low Cost

Durability

Reliability

Ease of Manufacture

Impact.

The students who collaborated on this project helped to reduce time wasted on the product's manufacturing process by 40% helping save lives sooner. As well, by creating a more affordable tool, more people will be able to receive treatment.



Twenty versions of the final prototype were **shipped to hospitals and doctors** in Nepal to help those injured by an earthquake and its aftermath.



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