

Using an Engineering Design Process to Design an Extendable Desk

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As the Covid-19 pandemic continues to affect our daily lives, we want to create a solution to the problem many students, teachers, and workers have been facing: having an uncomfortable, and inadequate in-home working environment. Our goal is to create an extendable desk that folds down to the size of a normal office desk when not in use but can also expand out to give the user more room to work. We started our design process by interviewing different customer segments to understand the pains and gains of our customers and form requirements for our product. The desk should be able to be easily and quickly converted from folded, to extended, without causing the user any issue. From customer interviews, we also found that people want the desk to include a standing option, so the user can choose their preferred working height. Another feature interviewees seemed interested in was some sort of built in storage option on the desk. Having a way to keep organized is important to this project. Since most students are doing more work in their dorm, or at home, and a lot of industry workers are working from home, providing a comfortable, and workable desk is our goal. After doing research on ergonomics, and materials best suited for the desk, we have been able to come up with unique designs of extendable desks in order to create a solution. With our final design, we will be testing and prototyping to design a comfortable and effective work environment for users.