

Simple Problem, Simple Solution: Backpack with Built-In Desk

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Standing desks seem to be the craze nowadays but when I looked around for a portable desk to use in the field, I couldn't find one. This prompted me to design something that would be compact, light-weight, functional, and able to hold a laptop to allow someone to type while away from their desk. This product would be practical for workers, recording data immediately, scientists, and students. After searching on Internet and finding nothing similar to this idea, I designed and then built my own version of a portable desk using custom parts. The engineering goals for the backpack design included being ergonomically comfortable, easy to store and use, provide space for items, and hold a laptop and be able to easily type. A steel frame was built to sit inside the backpack for structural support. Two arms were added to fold from the backpack and support the desk. When not in use, the desktop magnetically attaches to the back of the backpack. Several revisions have been built, and I have worked out some potential issues. After testing the backpacks, design III, has achieved most of my goals. My next version will include foldable arms that telescope to be smaller. This endeavor turned from a simple idea of a 14-year-old boy, to a product that could benefit millions of people. From technicians in the field to kids in the classroom, or just allowing people to sit less for health reasons, this backpack has infinite possibilities.