Researchers at the University of South Florida have worked towards building a foldable walker that collapses with respect to height, depth and also for the first time, width.

Generally, a medical walker is a walking frame, designed for disabled or elderly people who need additional support to maintain balance or stability while walking. It is usually adjustable in height and in depth, but not in width. Applying three scissor mechanisms and four sliders to our foldable walker introduces a unique feature that has not been applied in any previous product: the medical walker which the depth and width can be adjusted simultaneously.

Our novel design, with the use of a one-freedom mechanism introduces a unique feature to the medical walker that has not been previously applied in the industry: the width and depth simultaneously change when the device is being deployed or folded down. The device with fully deployed dimensions of H39"xD23"xW24" can considerably reduce to folded dimensions of H29"xD5.5"xW4.5"

The foldable walkers can fit into small spaces such as airline overhead storage compartments, compact car front seats, and other such limited space environments. It is mechanically simple to fold and unfold so that the user need not seek assistance from third parties when beginning or ending use of the walker.

ADVANTAGES:
- Reducible in height, depth and also width
- Compact and easily fits into small spaces
- Needs no assistance to fold or unfold

3-D Foldable Walker for the Physically Disabled

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