Researchers at the University of South Florida have created a tactile 3D map generator which allows users to build 2D maps and easily convert them to 3D printed maps for blind and low vision individuals.

About 1.3 million people in the US are legally blind and more than 650,000 are completely blind. These people must adapt to normal life by using other senses to navigate the world, such as touch. 3D tactile maps have been created in the past to give vision impaired people a better grasp on locations. However, these maps are not easily accessible, standardized, cannot be customized, and often limit important information. There is a need for more readily available tactile maps.

USF inventors created an application which allows the user to easily generate 2D maps that are converted to tactile 3D maps. The software provides tools to add information such as emergency evacuation routes, movable doors, and legend to the map. These tools allow the maps to be made in a more effective manner for blind and low vision users to understand and navigate locations. The software allows the user to draw 2D maps with necessary symbols, layouts, paths, and text. From this 2D map, a 3D map can be automatically generated and 3D printed. This software increases the accessibility and ease of creating 3D tactile maps.

**ADVANTAGES:**
- Simple and easy to use
- Effective mapping tools
- Applicable for both 2D and 3D maps
- Ability to turn 2D into 3D
- Automated tactile properties required for visually impaired

**Simple 2D / 3D Map Generator to Individually Create Maps for Visually Disabled People**

**3D Model Viewer of Map Created with Novel Application**

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