AR Sandbox

Team 10

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Customer Background

Young children visiting a museum will be able to access and use the AR Sandbox.

Problem Statement

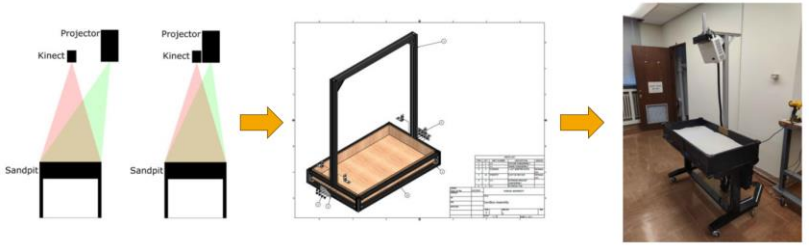
An augmented reality sandbox can assist in educating children about mapping, topography and earth science concepts through an interactive real-time model.

Requirements

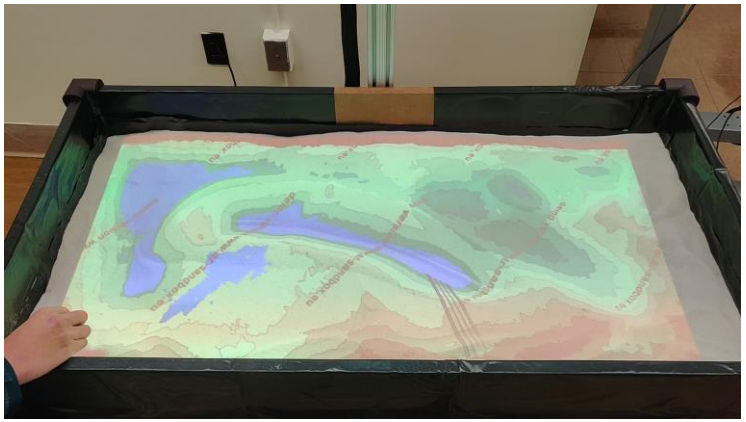
#	Design Target	Rationale
1	Runs off 1 power outlet	Ease of use
2	Safe for children to use	Target demographic
3	Detects sand elevations and projects map of sand	Functionality
4	Portable	Ease of use

Experimentation and Concepts

Sketch CAD Design Final Product



Final Design



Testing

#	Test Name	Test Description
1	Kinect Sensor Test	Sensor interfaces with computer and runs test software
2	Real-Time Updates Test	Moving sand around will affect the generated map of sand
3	Cleanliness Test	Water test to verify no hazardous materials in sand
4	Sharp Edge Test	Visual inspection and physical test to verify no sharp edges