EXPLORATION IDEA

The Tactile Sun Project will convert high resolution solar images into 3D print files with the push of a button. This innovation would allow anyone to create three dimensional solar features of their choosing and print them at home, at their school, local library, or makerspace. This process will combine visual information with tactile information, giving people who are sighted, blind, or visually impaired (BVI) a new way to explore the richness and complexity of solar features.

TARGET AUDIENCE(S)

The target audience is informal learners with roughly an eighth grade science comprehension level. There is a strong emphasis on BVI and other learners with accommodation needs.

POTENTIAL IMPACT

The ability to add tactile and 3D information to any solar observation allows BVI learners to independently explore solar features observed by NASA missions. This extra dimension of information also increases engagement for all learners including neuroatypical learners.

RELATED IDEAS/INNOVATIONS

- Research on transmitting knowledge tactiley in a general way
- Software pipeline that optimizes tactile representation of information, but with a user interface that allows for flexibility and accessibility

MATERIALS/EQUIPMENT

- Web development software
- Server space

EXPLORATION IDEA TEAM

- Team Lead: Dr. Henry “Trae” Winter III (Harvard)
- Team Members: MaryKay Severino (Eclipse Soundscapes), Dr. Jack Ireland (NASA)
**Exploration Idea Profiles** are developed through a guided process involving a step-by-step guide/worksheet where participants are invited to consider additional topics that include:

- Connections to other technologies
- Connections to existing information/research
- Connections to educational standards
- Connections to existing activities/projects
- Universal design
- Next steps

**HOW TO CONNECT**

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