

SOLAR VIEWING CANOPIES: A FIELD TEST

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Background

- Derrick Pitts, Chief Astronomer and Director of the Fels Planetarium at The Franklin Institute in Philadelphia, has widely shared how he created his own group eclipse-viewing option during the 2017 TSE.
- By modifying canopies using silver, black polymer solar filter material, he was able to increase accessibility for viewing the partial phases of the eclipse safely.
- Derrick has widely shared his ideas and images, encouraging everyone to create their own solar viewing canopy.



Images Credit: 2017, Derrick Pitts

The Problem

Not everyone has the knowledge, skills, experience, practical know-how, and solution-focused attitude of this award-winning Chief Astronomer.

Existing Barriers

- Lack of confidence and skills to modify canopies;
- Lack of experience in safe solar viewing;
- Lack of time to explore, given the two solar eclipse opportunities in quick succession;
- Fear of damaging and compromising the fragile material;
- Limited budgets to test ideas, given the cost of materials

“Very few people have proceeded to make solar viewing canopies because of uncertainties and barriers. This project aims to remove these barriers, enabling more solar viewing canopies to be assembled, increasing accessibility options for TSE 2024 and beyond.”



Project Goals

- Trial a number of eclipse canopy prototypes during the October 2023 Annular Solar Eclipse;
- Collect user feedback to improve design and assembly;
- Document the build process;
- Disseminate information across eclipse planning networks;
- If supported, develop a solar-viewing canopy blueprint.

Progress so far

- Initial prototype developed using guidance from previous builds, and Rainbow Symphony;
- Sharing of prototype and build process at this AAS Eclipse Planning Workshop in San Antonio to further guide the process;
- Willing team in Uvalde County awaiting guidance to build 12 canopies in total; documenting the build process;
- Solar Viewing Tents will be used across three major viewing locations in the Solar Eclipse Village in Garner State Park; House Pastures event in Concan; and the private Uvalde School district eclipse event with Sul Ross University;
- Feedback will be obtained from a range of audiences at all sites.



Information we aim to share

- What canopy options are available, and which ones work best with different groups of people;
- Where to order materials and in what quantity;
- Different methods of assembling the canopy; and what works best for each method; and
- Pricing of materials to include basic and deluxe options.

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