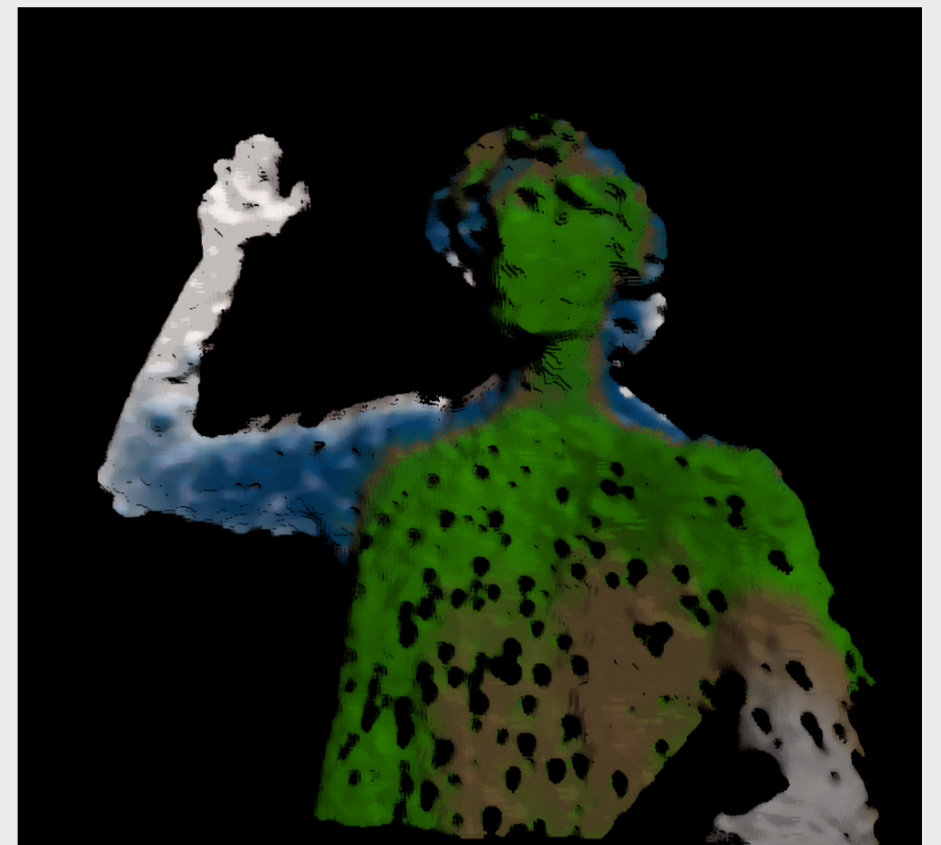
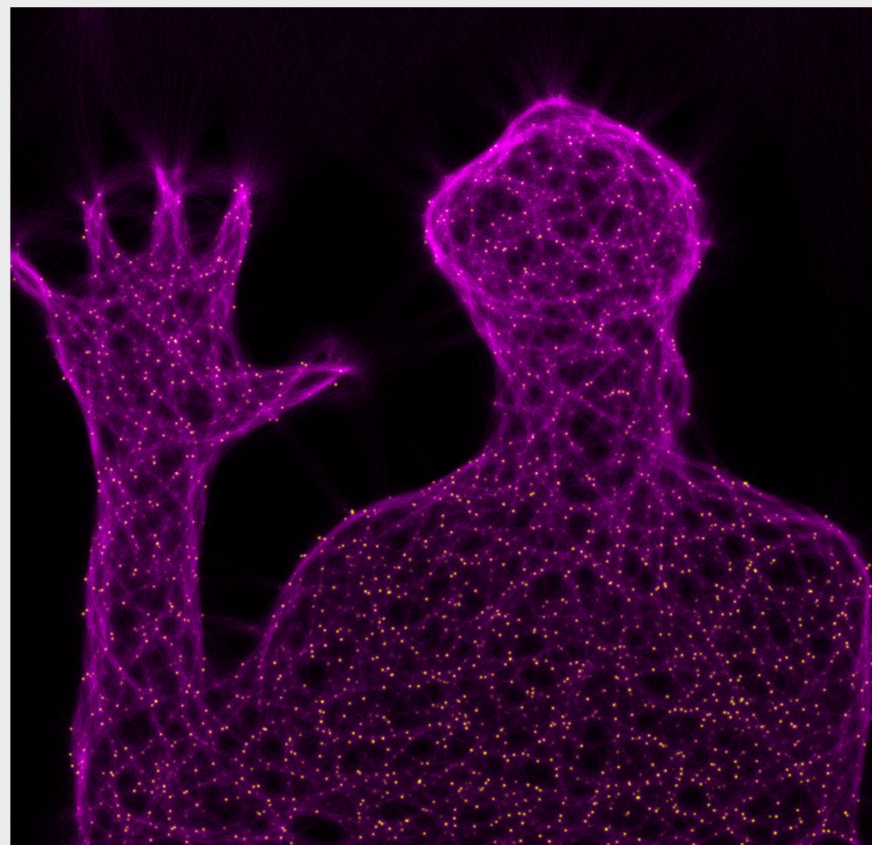
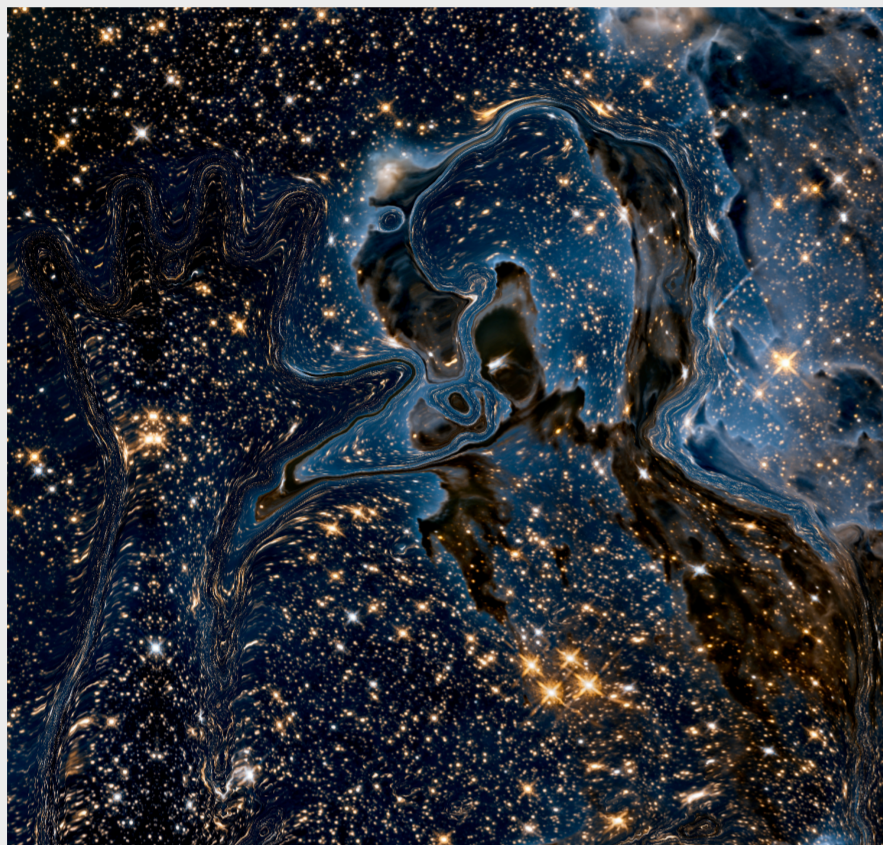


Reflexions

Cosmic Interactive Artworks

Reflexions is an **interactive art exhibition** that uses a real-time depth camera feed to display the viewer as different visual phenomena. This year, three additional cosmic themed artworks were created in cooperation with Tartu observatory: **gravitational lensing artwork**, **cosmic web artwork**, and **habitable-zone planet artwork**. These artworks are intended to bring complex cosmic phenomena closer to regular people in order to further their interest in cosmology and astronomy.

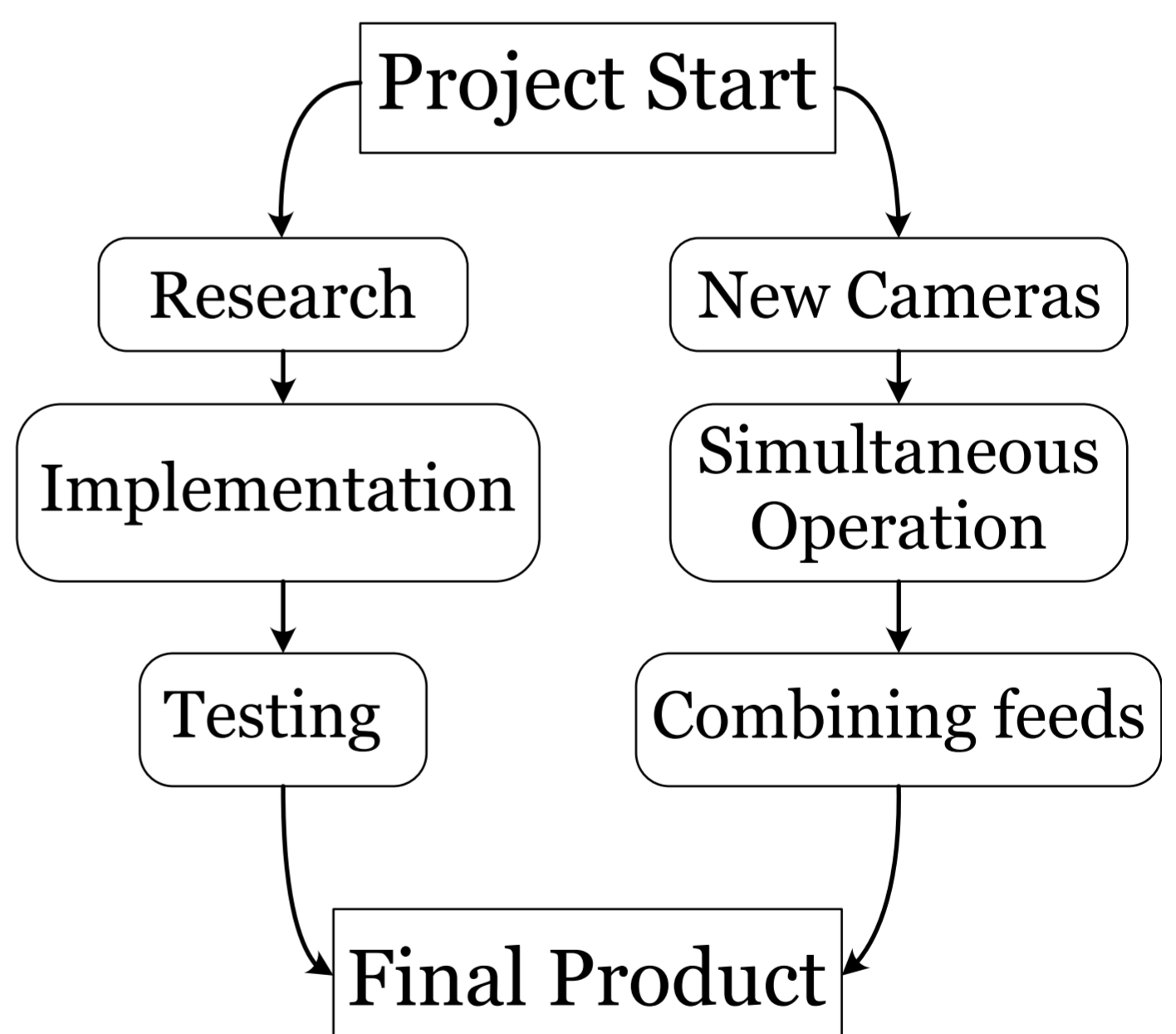


Implementation

The project was divided into **two separate halves**. One was to **research, implement, and test** the artworks. The other half consisted of **adding support** for new depth cameras and their **simultaneous operation**, as well as **combining** their feeds into one reprojected final depth feed.

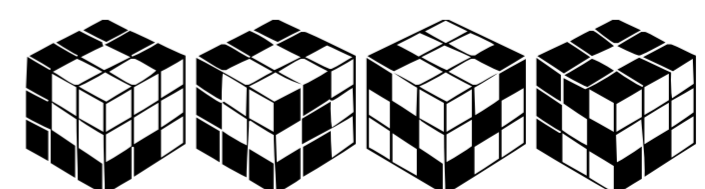
Results

The final artworks were reviewed by the staff and the scientists at Tartu observatory and were well received. During the performance tests for regular **single-camera mode**, an **average FPS of 142** was measured for the first artwork, **90** for the second, and **81** for the third one. In **two-camera mode**, however, the performance was worse: **22, 11, and 22 FPS** respectively. As this indicates, further optimisations are needed in the future.



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