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Will a film using Darmstadt technology win an Oscar?

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(Darmstadt/Los Angeles) A research group at Fraunhofer IGD in Darmstadt is following this year's Oscars with particular interest: "Missing Link" has been nominated for Best Animated Film, in which every single facial expression was 3D-printed with the Cuttlefish software developed in Darmstadt.

"For our current production, 'Missing Link', we used Fraunhofer IGD's technology because it was able to produce one-of-a-kind color consistency and geometric accuracy. By combining the Cuttlefish software with the Stratasys J750 hardware, we were able to create the most complex color 3D prints that have ever been produced," explained Brian McLean, Director of Rapid Prototype at LAIKA, which was nominated in 2017 for an Oscar® for Best Visual Effects for "Kubo and the Two Strings" and which has extensive experience in using 3D printers in stop-motion films.

In virtually every shot of the film, 3D-printed faces can be seen: a total of 106,000 in order to be able to depict every single facial expression of the various characters.

On January 5, 2020, "Missing Link" won the Golden Globe for Best Animated Film in the face of stiff competition. The film studio is now up for an Academy Award in the same category on February 10 (GMT +1).

More Information

Golden Globes 2020 win:

<https://www.igd.fraunhofer.de/en/press/news/golden-globes-2020-our-cuttlefish-software-produced-over-106000-faces>

3D printing technology by Fraunhofer wins over LAIKA

<https://www.igd.fraunhofer.de/en/press/news/fraunhofer-3d-printing-technology-impresses-animation-studio-laika>

FRAUNHOFER INSTITUTE FOR COMPUTER GRAPHICS RESEARCH IGD

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Image: The many faces of Mr. Link: Over 106,000 faces were 3D-printed for the production. (© LAIKA Studios)



Image: Still from the film "Missing Link", a film in which 3D-printed faces can be seen in virtually every shot. (© LAIKA Studios)

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Institute profile

Founded 30 years ago, Fraunhofer IGD has become the world's leading institution for applied research in the field of visual computing. Visual computing means image and model-based IT. In simple terms, it describes the capability of transforming information into images (computer graphics) and extracting information from images (computer vision). The numerous application scenarios include human/machine interaction, interactive simulation, and modeling situations.

Our developers at the sites in Darmstadt, Rostock, Graz, and Singapore develop new technical solutions and prototypes all the way up to the market readiness stage. In collaboration with our partners, this results in application solutions that are custom-tailored to customer requirements.

Our approaches facilitate the work with computers and are efficiently used in the industry, in everyday life, and in the healthcare sector. Our research highlights includes assisting people in the Industry 4.0, the development of key technologies for the Smart City, and the use of digital solutions in the field of Individual Health.

Through applied research, we support the strategic development of the industry and economy. Especially small and medium-sized enterprises as well as service centers can benefit from this and be successful on the market with the help of our leading technologies.

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