



Sponsor



Integration of LIDAR Hardware onto Current Camera Systems

Ricky Wu

Faculty Advisor: Dr. Wenda Tan

Introduction

-VFX is a very integral part of today's entertainment industry



<https://www.hollywoodreporter.com/movies/movie-news/oscars-visual-effects-harry-potter-thor-transformers-captain-america-268749/>



<https://www.vanityfair.com/hollywood/2022/12/awards-insider-avatar-the-way-of-water-visual-effects>

Current Methods

-Chroma key

-Rotoscoping



<https://toonzacademy.com/blogs/know-the-benefits-of-learning-vfx/>

FROM FOTO....

TO ROTOSCOPIED IMAGE

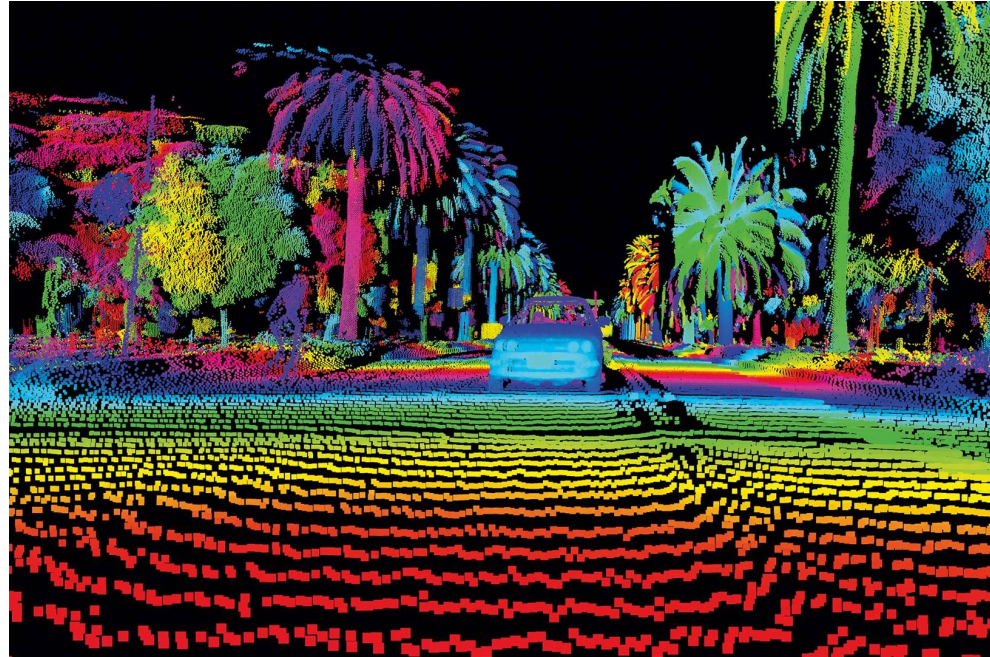


<https://www.computerhope.com/jargon/r/rotoscoping.htm>

LIDARs



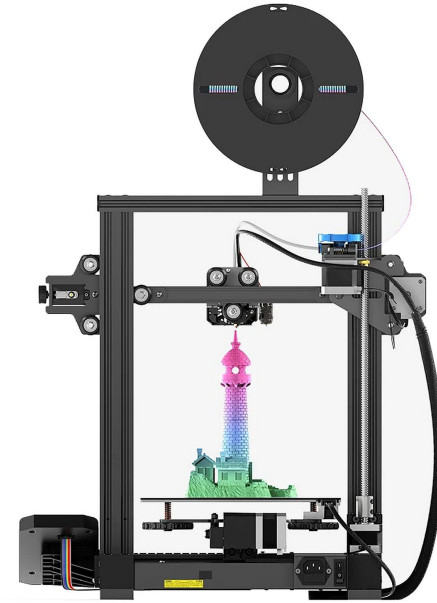
<https://www.sick.com/fi/en/lidar-sensors/3d-lidar-sensors/mrs1000/c/g387152>



<https://www.geospatialworld.net/prime/technology-and-innovation/what-is-lidar-technology-and-how-does-it-work/>

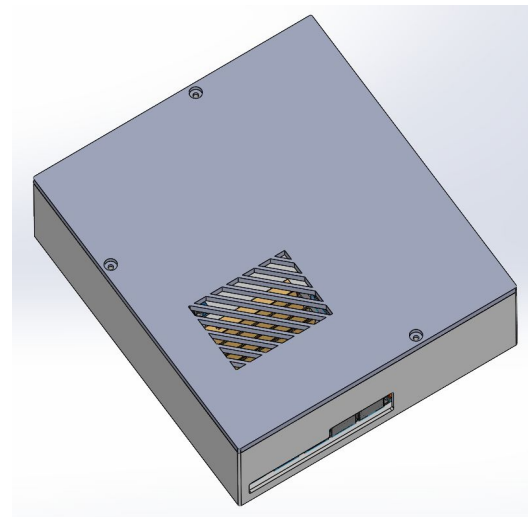
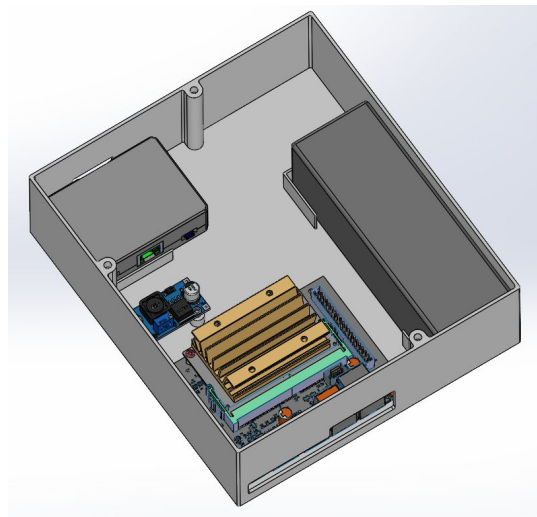
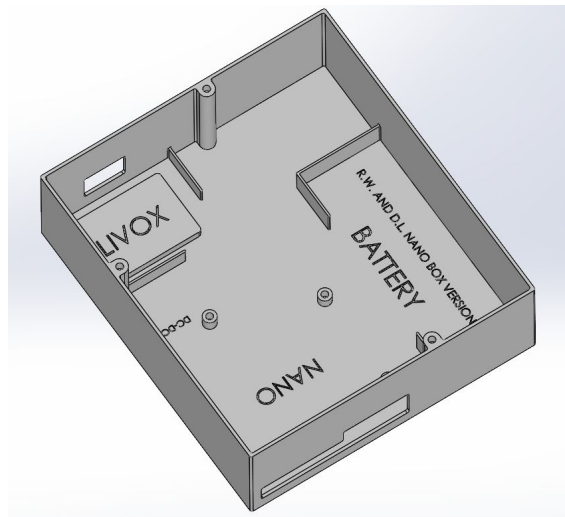
Methods

- Asked about vital features
- Proposed interview questions

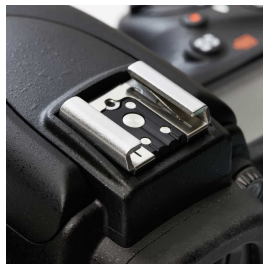


<https://www.ldlc.com/en/product/PB00533814.html>

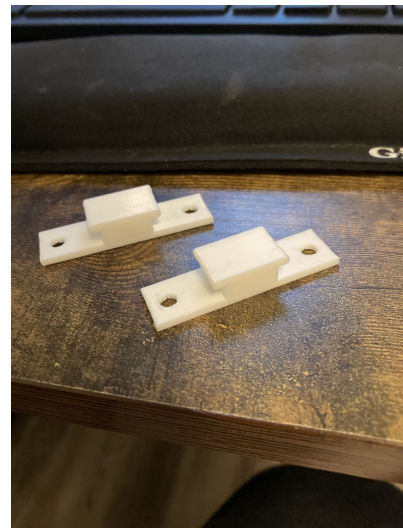
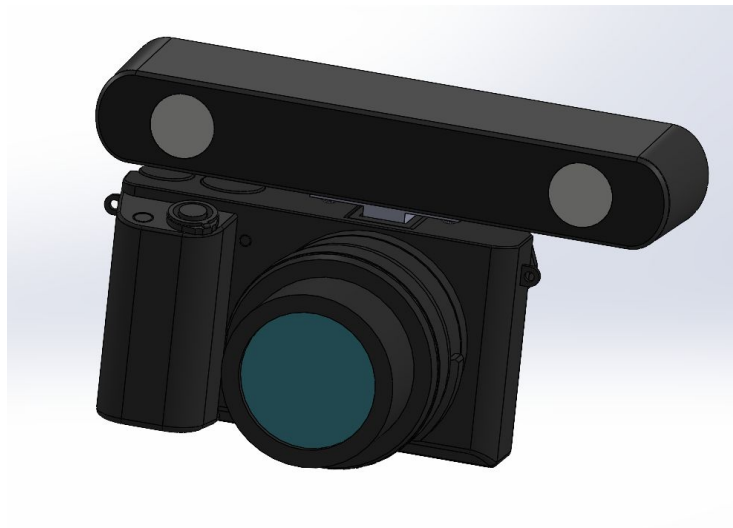
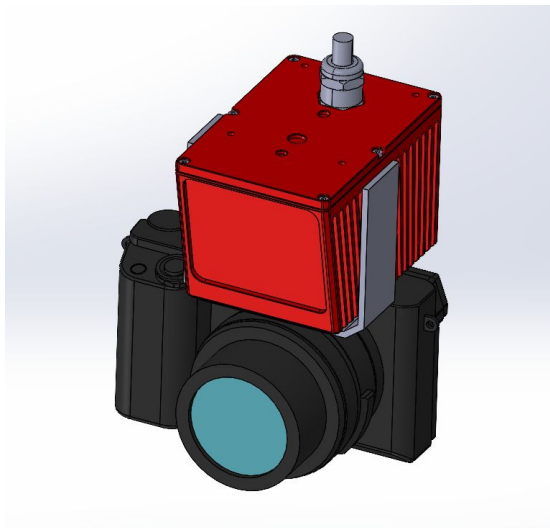
Driver Box



Mount



<https://portraitsrefined.com/hot-shoe/>



Discussion

- Adequate proof of concept and design stepping stone

- Main issues

- Driver box size

- Hot shoe functionality

Conclusions

- First entrepreneurship experience
- Fast paced environment, rapid adapting
- Became resident expert
- Part of something bigger

Acknowledgements

-Brandon Fan, Emerson Dove, others at Shade

-Dr. Wenda Tan

-Engineering Honors Program

-Donghyun Lee