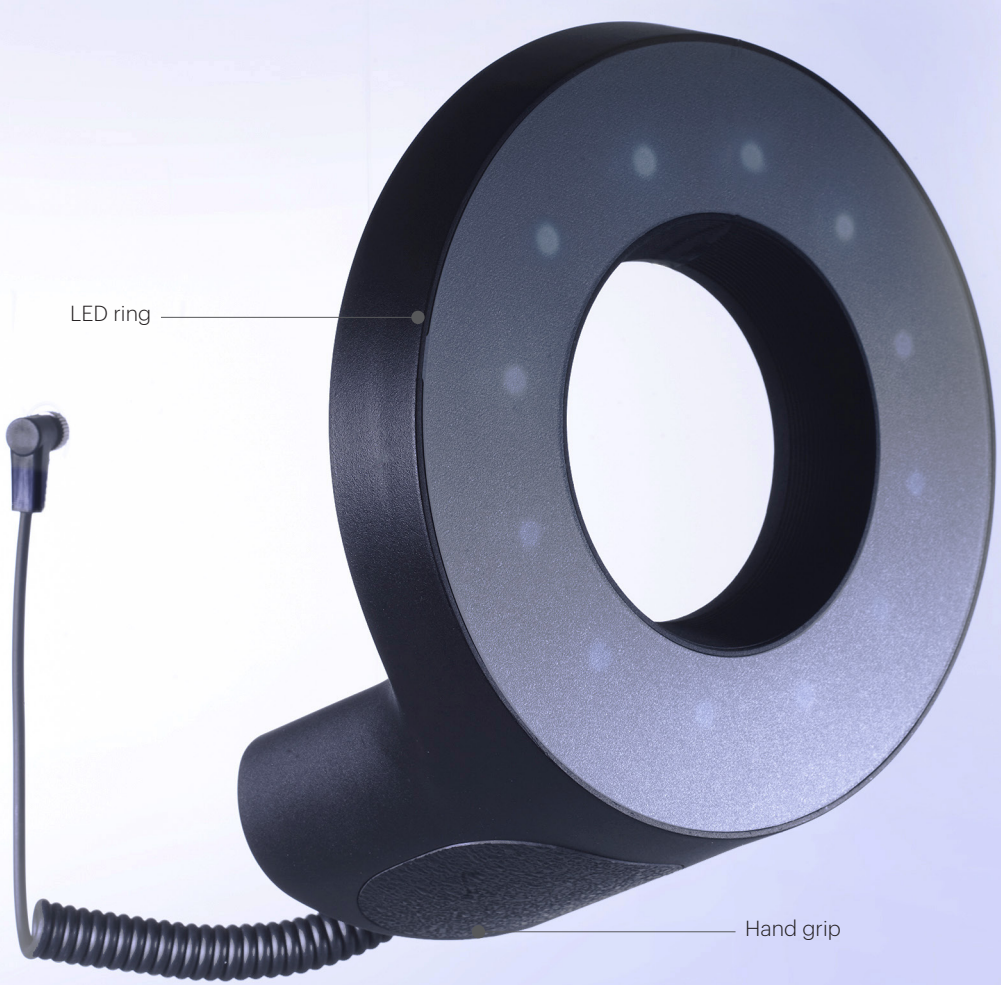

M-01 multispectral camera
illumination induced technology
Designed and engineered in Switzerland
Compatible with Sony / Canon / Nikon DSLR
A

DESIGN TYPOLOGY

The tapered profile shape creates a compact, visually light design and a typology for the flash. Functional details like the mounting ring are cleverly integrated without being obtrusive.

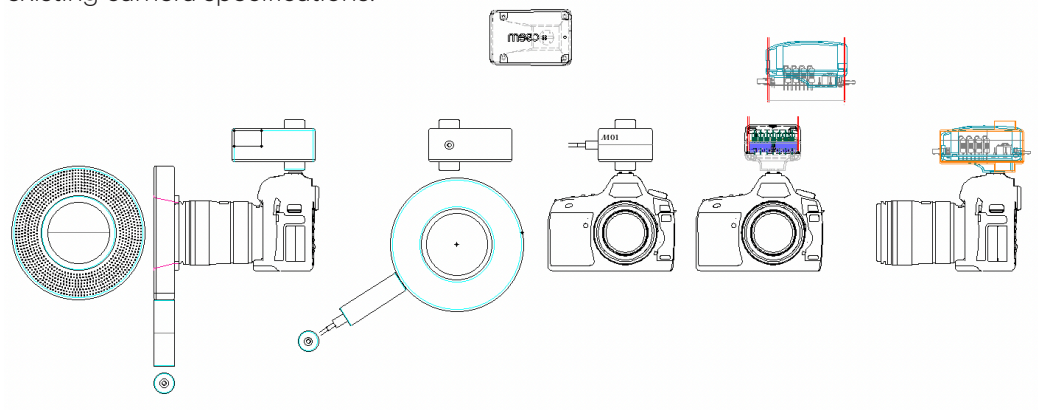
FEATURES

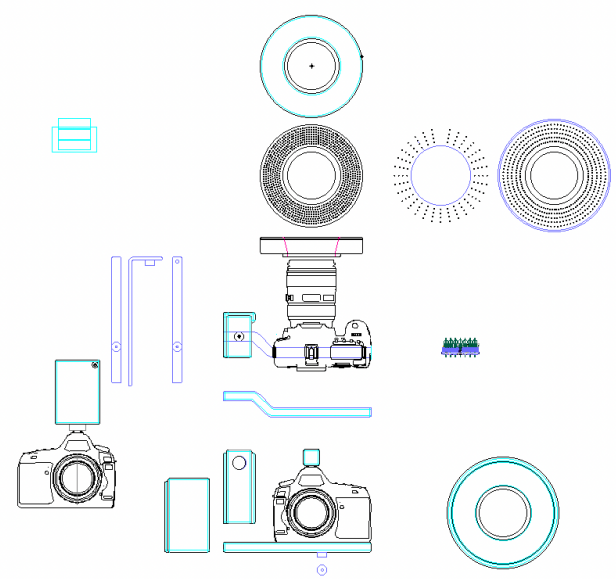

LED ring
Hand grip

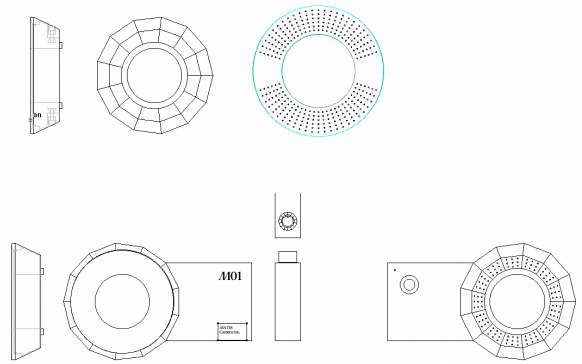

Camera mounting ring
Power button
Wavelength dial
Sync cable to the camera

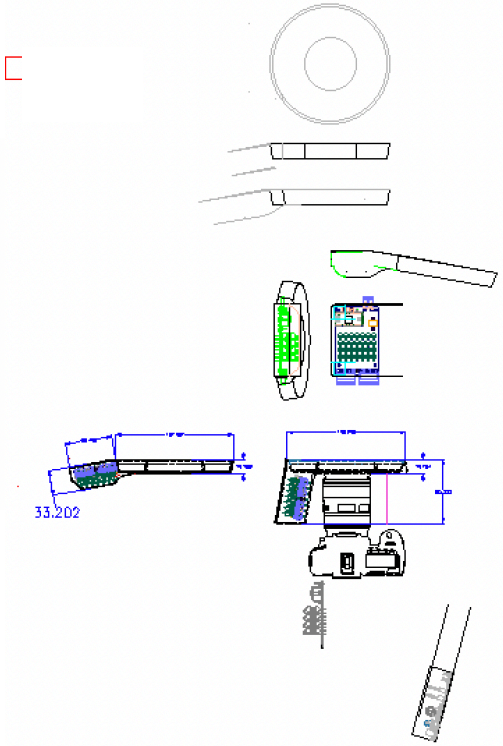
INITIAL 2D SKETCHES

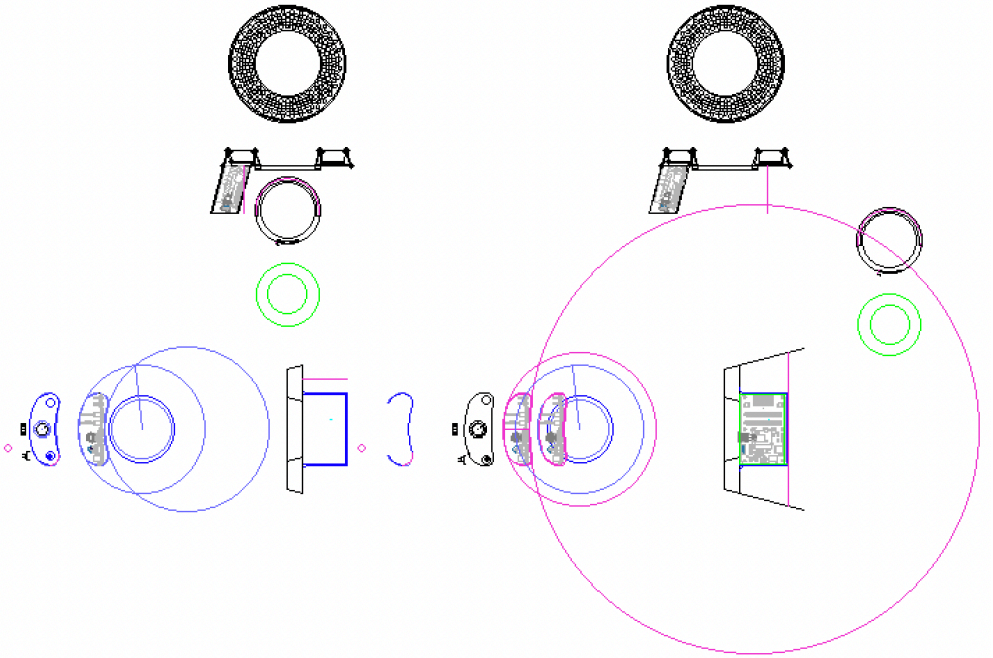
Initial rapid 2D sketches in graphite software to explore various forms, features, and embodiments of the product in conjunction with existing camera specifications.





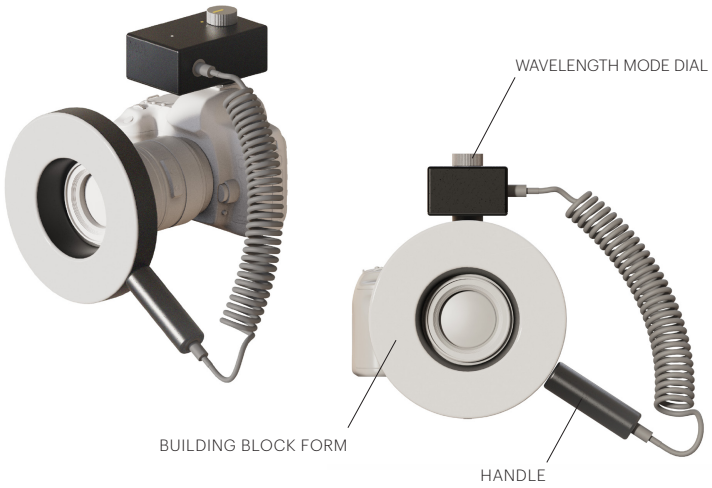


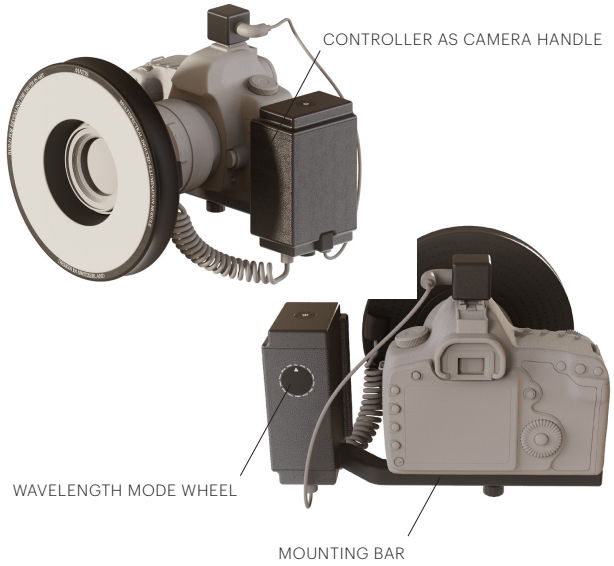


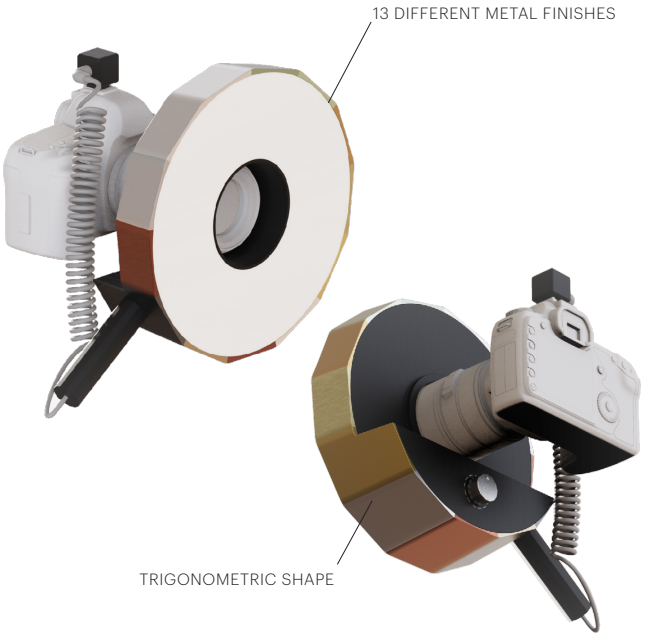


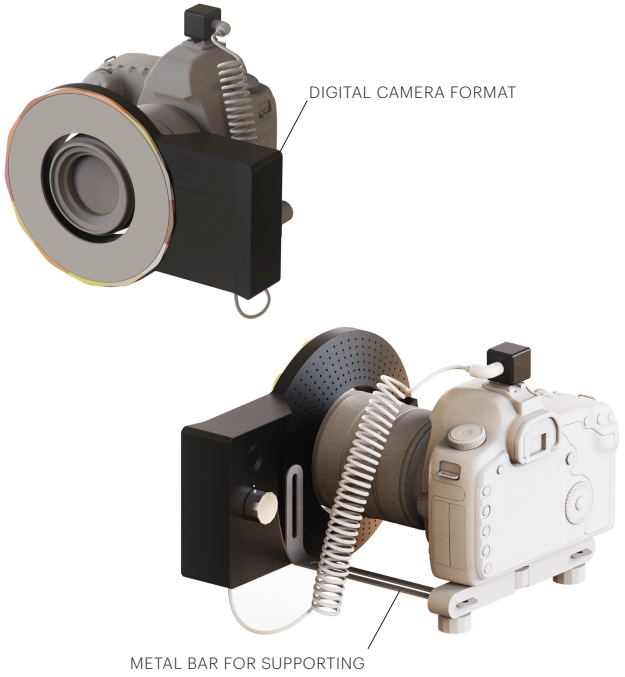
3D SKETCHES

Explore different combinations of LED flash and controller positions on the camera to find a good balance between usability and engineering feasibility for the user and to maintain the original functionality of the camera.



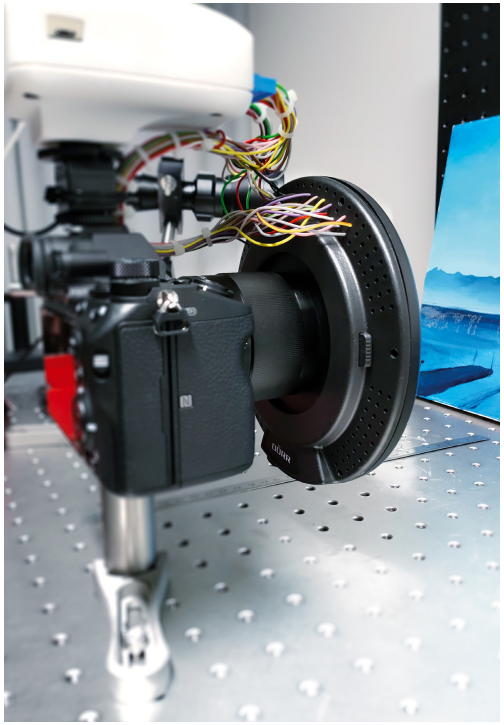


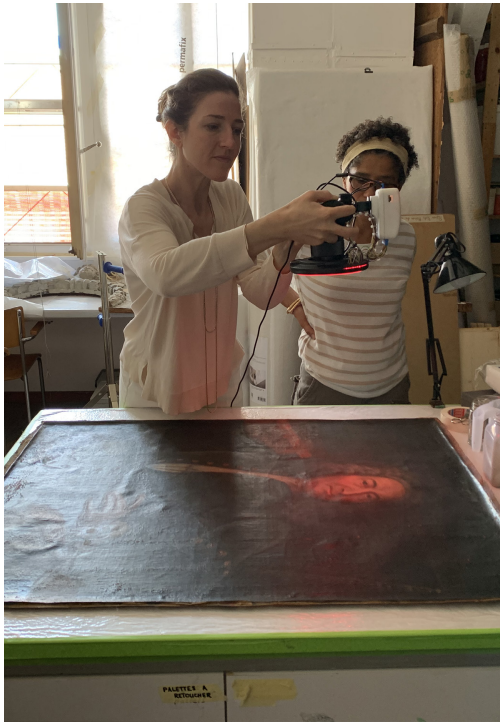




USER TESTING AND INTERVIEWS

The prototype was developed based on feedback from professional art restorers and gallerists based in Switzerland. Also, during the development process, I collaborate with technical engineers at the CSEM for exploring the adaptability of the flash and controller module to DSLR cameras.



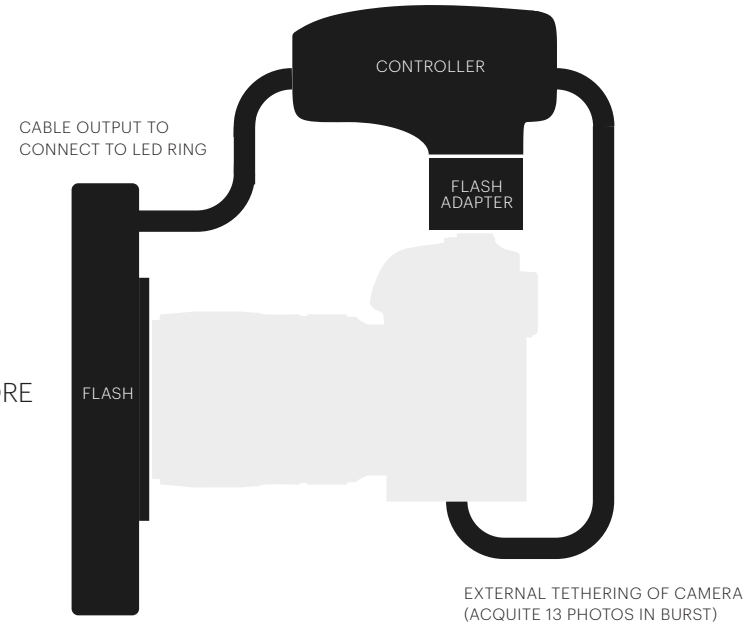


FURTHER PROTOTYPE

Controller housings were SLS 3D printed, with the controller connected to the camera via hot shoe and connected to the LED ring flash.

MULTISPECTRAL FLASH RING AND CONTROLLER PLACEMENT DEVELOPMENT.

BEFORE



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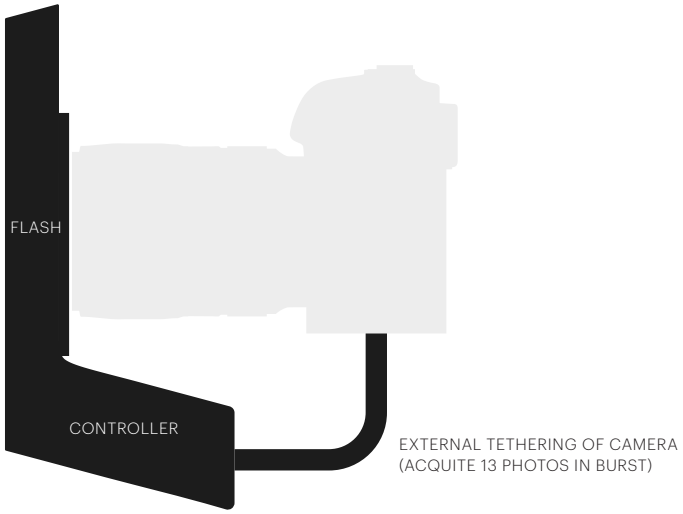
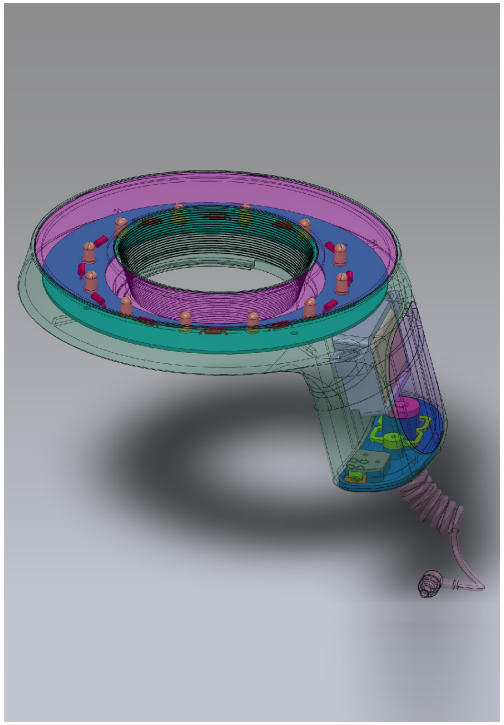
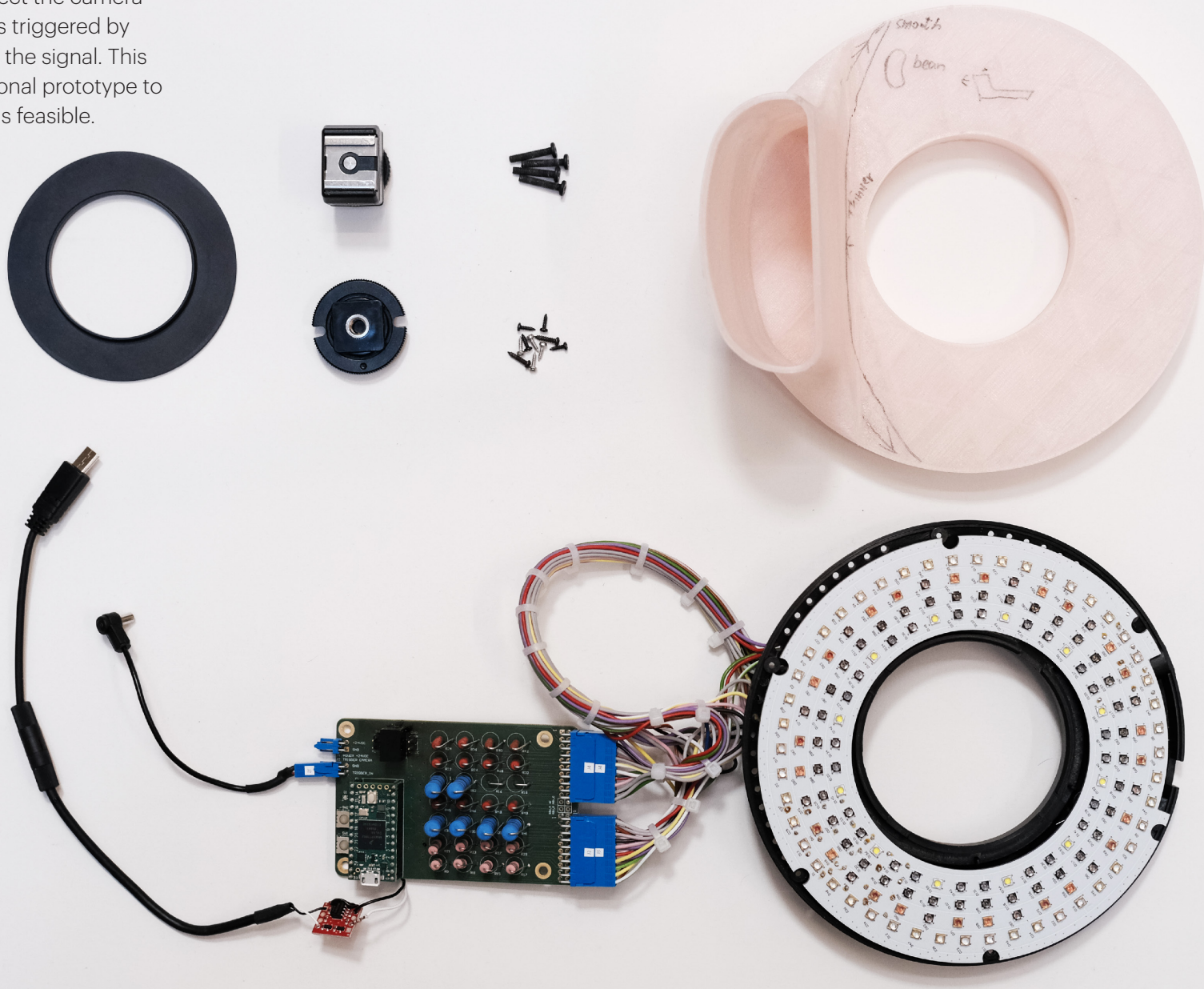




ASSEMBLY AND COMPONENTS

An electronic prototype of the basic design was created including the LED flash, the controller was used to connect the camera to the flash, and the LED was triggered by pressing the shutter to send the signal. This is a fully portable and functional prototype to prove that the basic design is feasible.



THANK YOU