APPENDIX 1. PROJECT PRODUCTION TIMELINES

| | 1h | 2h | 3h | 4h | 5h | 6h | 7h | 8h | 9h |

Glare Acuity Tester

Version 1 Design — *Notes: designed from scratch , much smaller than the final version*

Print 1 — **Material Use (Cost estimate): 2.82 meters ($0.14 USD)**

Version 2 — *Notes: enlarged bowl, less material in the stand, fits Heine transilluminator*

Disposable Pinhole Cover Paddle

V1 — *Notes: designed from scratch*

P1 — **0.64 m ($0.03)**

P2 — **4.92 m ($0.25)**

V3 — *Notes: additional size to fit Welch Allyn Transilluminator*

P3 — **4.74 m ($0.24)**

V2 — *Notes: modified pinhole sizes / width set to average PD*

P2 — **1.29 m ($0.06)**

V3 — *Notes: thinned the cross bar for efficiency on a single use product*

P3 — **0.64 m ($0.03)**

Ophthalmic Equipment Repair

V1 — *Notes: designed from scratch*

P1 — **0.62 m ($0.003)**

V2 — *Notes: idened to allow for more support on the clear plastic cover*

P2 — **1.92 m ($0.41)**

V3 — *Notes: based on an existing nut and washer cover set online*

P3 — **0.62 m ($0.03)**

Lens Thickness Caliper

V1 — *Notes: heavily based on an existing Vernier caliper, added clamp only*

P1 — *Note: much longer printer time due to fine detail in the vernier scale* — **8.19 m ($0.41)**

NoIR Filter Lens Blank Flipper

V1 — *Notes: designed from scratch, not big enough, single lens holder test print*

P1 — **2.5 m ($0.13)**

V2 — *Notes: larger, added hole for the tab on the lenses, single test print*

P2 — **2.23 m ($0.11)**

V3 — *Notes: full print holding 8 NOIR lens blanks total in a flipping format*

P3 — *Note: long print time due to item size* — **13.32 m ($0.67)**

Optivisor Faceplate

V1 — *Notes: initial deisgn by GH, when printed was too thin to support use*

P1 — **4.42 m ($0.22)**

V2 — *Notes: reinforced, although some additions were in places affecting install*

P2 — **5.89 m ($0.29)**

V3 — *Notes: reinforced but useable*

EasyPocket ID Lanyard Holder

V1 — *Notes: loosly based on a wallet credit card holder, magnifier holder only*

P1 — **5.19 m ($0.26)**

P3 — **5.24 m ($0.26)**

V2 — *Notes: added ability to hold manifier and ID card / Credit Card*

P2 — **8.57 m ($0.43)**

V3 — *Notes: Size adjustment, refined stops to minimize risk of loss*

P3 — **8.98 m ($0.45)**

Dome Magnifier Handle

V1 — *Notes: designed from scratch, slightly too small, had to sand down*

P1 — **10.86 m ($0.54)**

V2 — *Notes: printed slightly larger to exactly fit the magnifier*

P2 — **11.08 m ($0.55)**

Phoropter Near Card Holder

V1 — *Notes: designed from scratch*

P1 — **11.48 m ($0.57)**

V2 — *Notes: size adjustment, removed cross supports and reinfoced the arms*

P2 — **12.27 m ($0.61)**

Note: each grid square represents a ten-minute increment of time