

# APPLYLABWORK PRINTING INSTRUCTIONS

## MSLA-Modeling – Dental (MMD-R001DN)

### Check

- Resin vat and LCD screen are clean
- Shake resin bottle well before pouring (shake for 60 sec)
- Resin vat and platform are locked
- Do Not overfill resin in the vat

### Exposure Settings

The following table is the recommended settings for various MSLA printers and layer thickness:

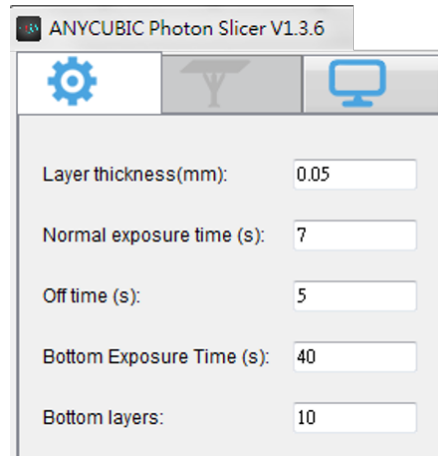
Recommended Setting Parameters

Printer	Layer Thickness	Normal Exposure Time (sec)	Bottom (Burn-In) Layers	Exposure Time (sec) for Bottom (Burn-In)
Photon	50 μm	7	8	40
Photon	100 μm	12	10	45
Photon S	50 μm	5	8	40
Photon S	100 μm	8	10	45
Shuffle	50 μm	10	8	30
Shuffle	100 μm	15	10	40
Shuffle XL	50 μm	8	8	30
Shuffle XL	100 μm	12	10	40

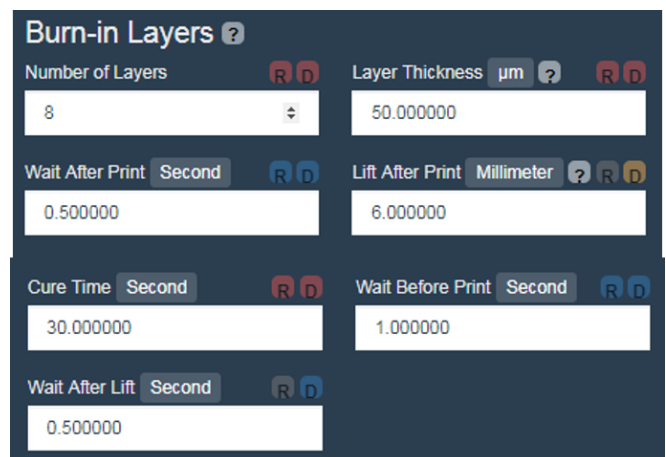
Each printer is unique, light intensity varies from printer to printer even if they are the same model and make. Please adjust normal exposure time from our recommended settings  $\pm 2$  seconds for your printer and print geometry.

For size calibration, download the stl file: <https://www.thingiverse.com/thing:1586206>

Setting Example:  
**AnyCubic Photon:**



**Phrozen Shuffle:**



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## Washing

Submerge print in clean IPA for up to **5 minutes**, gently shake-off / blow-off excess IPA, set print in a shaded airy place to dry before curing. **(extended period in IPA causes deformation)**

Dried print might be a little tacky to touch

## Curing

Post-curing required for optimal material performance: Light wavelength: 405 nm Total light energy per unit area required on the print: **324,000 mJ/cm<sup>2</sup>**

Example:

Light power on the print = 40mW/cm<sup>2</sup>,  
(higher power per unit area shortens curing time)  $324,000 \text{ mJ} / 40 \text{ mW} / 60 \text{ sec} = 135$   
minutes of curing time

Controlled curing chamber temperature  
between: 40~50°C / 104~122°F

## Storage

Don't keep resin in the vat for more than **2 days**. Filter out all debris in the case of failed print

**Note:** Slight pigment settlement is normal. Gently mix remaining resin in resin vat with soft wiper for color evenness