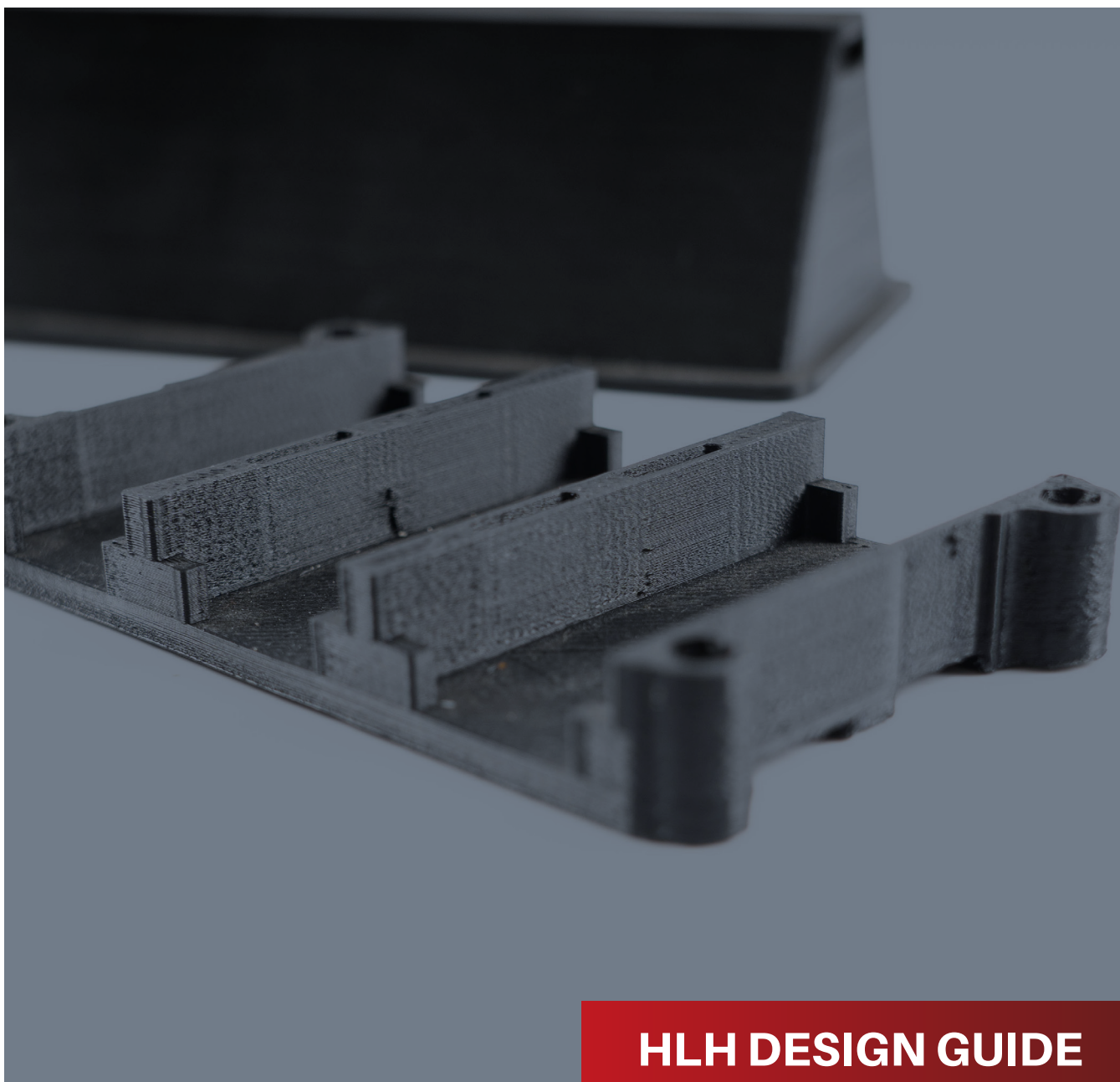




HLH DESIGN GUIDE

FDM 3D PRINTING

Address

China Office: Room 1231, Wanjiali International Mall, Wanjiali Middle Road No.99, Furong District, Changsha, Hunan province, China, 410016

HLH Proto LTD

☎ +86-731-8223-4949 for English

✉ info@HLHProto.com

High Quality Rapid Prototypes,
Rapid Injection Moldings and Rapid Parts

TIPS & TRICKS:

Reduce weight to save costs
Add escape holes for resin in closed sections
Fillet walls and pins for extra strength

BUILD VOLUME: 750x750x750mm

MATERIALS:

PLA、
ABS、
ASA、
Etc.

ADVANTAGES:

Low cost per part
Large selection of materials
Less environmental pollution
Post-processing is relatively simple
Chemical resistance
Parts of warping deformation is small

DRAWBACKS:

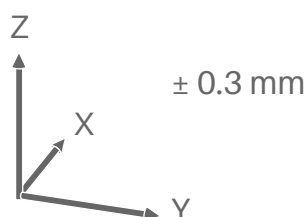
Support material required
The molding time is long
The surface is well striated
Small strength in the direction perpendicular to the section

SURFACE FINISHES:

Smooth

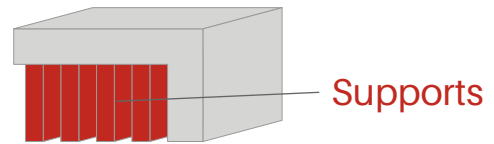
TOLERANCES:

± 0.3 mm is standard.



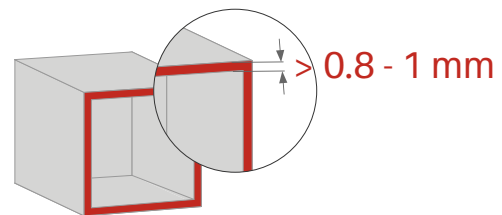
OVERHANGS:

Not a problem for FDM due to the supports.
Unsupported overhangs will warp.



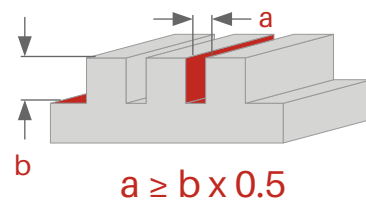
WALLS:

FDM can manage very thin walls but
HLH do not recommend anything
under 0.8 – 1mm.



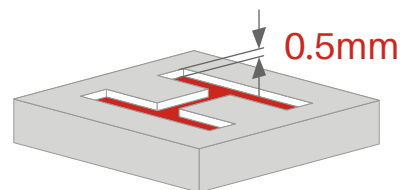
HOLES & SLOTS:

We recommend a minimum of 0.5mm
but the larger the better especially
as wall thickness or depth increases.



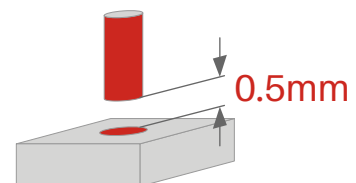
TEXT & ENGRAVED DETAILS:

Are at risk of closing up if not
designed with 0.5mm > minimum height.



MATING PARTS:

Minimum 0.5mm gap between axel
and bore or other moving parts.



PINS & EMBOSSED FEATURES:

Pins $\geq 0.8\text{mm}$ but even then risk breaking. Embossed features $\geq 0.3\text{mm}$.

