[Step 1——Connection]

1. Power on / off
2. Start / Pause
3. 100-240V/60W
4. NVIDIA as main GPU + Window 10

[Step 2——Camera Calibration]

Instruction:
1. Please calibrate under standard mode (larger FOV).
2. Start, keep the 2 laser points overlap, and vertically downward slowly to tick 425,
   then upward slowly to tick 575, pause, then proceed next step;
3. Suggest 30° angle against the horizon

[Step 3——Color Calibration]

Scan the A4 white paper (target), note the below display until it equals to the A4 paper
white (target surface color), and click OK to finish, please skip this step if you have the
monochrome version.

[Step 4——New a project]

1. Standard = Larger FOV
2. Fine = Smaller FOV
3. Overview: more than 1 meter sized target;
4. Vertex colors scan with feature

Feature align—geometrical align, for carvings / face / statue / teeth / bust / etc;
Mark align—require mark sticker, for smooth surface / impeller / symmetric / standard primitives / car house;
Mix-align—hybrid between feature and mark align, to save mark stickers;
Frame align—fast mark align to build GMF, then fine mark align to fill in, for over 1.5m sized targets;
Tips to scan more efficiently

1. Keep adjacent images more than 15% overlap feature, or more than 5 public mark stickers;
2. Start from the middle of the object and follow a spider path towards the edges to reduce the risk of tracking loss (for larger sized objects);
3. If you tracking lost, back to the richer geometrical parts will help re-align more faster;
4. To get a better volume accuracy, fast mark align to get a bit coordinate and fill in to complete.
   Please refer: https://youtu.be/mS08U0akVU;
5. To scan completely one time may accumulate more images, then result in heavier load for CPU, you could create groups for different positions and merge them together;
6. Test mode adjust the brightness value by pressing the arrow button (↔ or →) of the keyboard.

[ Step 7 — Para Settings ]

Tips:
To choose the priority order, please note:
the better accuracy, the better resolution,
the weightier STL, the slower meshing.

Tips:
Collapse boundary means clearing the extras
of the cavity filling, if set to 7.5, system will not fill the holes boundary.

Filter radius means to the mark sticker, the lower
the value, the smaller the holes left.
Uncheck the "laser" could shut off the 2 laser points.

Mesh after scan

[F A Q]
1. Why my scanner failed being detected T02 (Imaging devices)?
   Usually, if your PC failed installing the drive, please check software,
   find the exe file in "Thunk3D setup > Executable > driver_setup_yd4",
double click to install and try again, if still not work, please contact us.

2. Why my scanner was detected T02 but can’t start?
   Check your PC if it’s power by battery, if so, shift to AC power.

3. Why my scanner suddenly project slower?
   The main reason is that the USB 3.0 was detected as USB 2.0, you must
   ensure your USB 3.0 port has stable supply.

4. Why I can’t open software after connecting?
   1. If it’s your first time opening, check if your setup file installed
      in the U-disk but now pulled out?
   2. If your PC version is below CUDA10, the software will
      pop-up instruction for you to follow and download.
   3. If you had updated the software, make sure uninstall the
      previous version firstly.

5. Why my graphic card is not compatible with the device?
   Our software is only optimized for Nvidia graphic cards, please refer the
   Nvidia official website, any cards above the 3.0 hashrate will do.

6. Can the device scan human hair?
   Some matt and short hair could work, others should be styled as still, hard, it’s troublesome, we usually do after process in Z-brush.

7. How can I turn off the two laser points?
   Open the software > setting, uncheck the "laser".

8. How large/small the object can I scan with the device?
   Depend on the ROI (kg: 40cm*32cm), we suggest the target,
   L+W+H size less than 15 multiple of 40cm as 200cm*200cm*200cm,
   and more than 1 multiple of 40cm as 15cm*15cm*15cm.

9. Can the device scan dark/black object?
   Try the maximum lightness by left and right error key during scanning,
   if the images still not satisfied, spray then scan.

10. How can I contact you if I have doubts on the device?
    You could contact us via: service@thunk3d.com, tell your dongle number
    (software> Help>80****), we will contact you back with 12 hours,
    resolve your problem by Zoom/Teamviewer ect.