

The MakerBot Digitizer is a 3D scanner for objects up to 8 x 8 inches. This scanner allows for real world objects to be turned into a digital 3D file that you can modify and later print with the MakerBot Replicators.

STEP 1: Connect the Digitizer to the Computer

- Turn on the Digitizer.
- Use the USB to USB cable to connect the Digitizer to the computer.

STEP 2: Open Digitizer Software

STEP 3: Calibrating the Camera

- You don't need to calibrate after every scan, but it is required every time it is setup, is bumped or gets moved.
- Make sure that the filter covers the camera on the Digitizer.
- Press the Scanner tab at the top of the screen and select Calibrate Camera.
- The instructions below will appear on the screen.
- Place the Calibration tool (the white and black checkered triangle) on the Digitizer as instructed on the screen.
- The first orientation is for A. Place the Calibration tool with A facing upwards (the direction of the arrow next to it) and the small peg on the bottom into the slot in the center of the turntable. Press Continue when you are ready.
- The second orientation is for B. Turn the Calibration tool so that B is facing upwards, again there will be a small peg on the bottom, slightly off from center, place it into the slot on the turntable. Press Continue when you are ready.
- The last orientation is for C. Slide off the front plate of the Calibration tool as shown and place it off to the side. Place the rest of the Calibration tool onto the turntable so that C is facing upwards. There is no peg to insert this time so just center it as best you can and press Continue when you are ready.

STEP 4: Calibrating the Turntable/Laser

- You don't need to calibrate after every scan, but it is required every time it is setup, is bumped or gets moved.
- Press the Scanner tab at the top of the screen and select Calibrate Turntable/Laser.
- The instructions below will appear on the screen.
- The first orientation is for B. Turn the Calibration tool so that B is facing upwards, again there will be a small peg on the bottom, slightly off from center, place it in the slot on the turntable. Press Continue when you are ready.
- The last orientation is for C. Slide off the front plate of the Calibration tool as shown and place it off to the side. Place the rest of the Calibration tool so that C is facing upwards. There is no peg to insert this time so just center it as best you can and press Continue when you are ready.
- You are now ready to scan your object.

STEP 5: Scanning Your Object

- Place your object you want to scan onto the turntable.
- Choose the scan presets that best matches the shade of your object to ensure the best quality of your scanned image.
- Make sure that the filter covers the camera on the Digitizer.
- Press Start Scan on the left of the screen (DO NOT touch the object while it is being scanned).
- If your object is to your satisfaction, name it and press Finish Scan.
- Save a copy where ever you see fit. At this point, you can scan more if you wish.

STEP 6 IS NOT ALWAYS NEEDED AND IS CONSIDERED OPTIONAL

STEP 6: Multi-scan

- Multi-scan is something you might want to do if there are parts of your object where there are large concave indents or holes naturally on your physical object. It's also vital if there are details on the bottom or top of your object that the camera can't see. The files will later merge into one file.
- Rotate your model to see if there are any missing or incorrectly captured features.
- Pivot your object on the turntable to expose those features to the camera.
- Click on Multi-scan on the right side of the screen to add scans. Scanning two or three more angles should be enough to capture all your features. The more scans you have when merging, the more complicated your final file will be, this may result in less detail in the object.
- When you're done with each Multi-scan, click Add Scan on the right side of the screen above Finish Scan. All of these scans will merge to form one file.
- When you're completely done scanning click Finish Scan at the bottom of the screen.
- Save a copy onto the computer. After, you can scan more if you wish.

TROUBLESHOOTING, COMMON PROBLEMS, AND QUESTIONS

- Double check the Digitizer is both plugged into a power source and connected to the computer you are using.
- If your object comes out strange or blurry try changing your scan preset (take the lighting in the room into account).
- The Digitizer isn't perfect. It will not pick up fine details on the objects. Some details will be lost.
- Scans do take some time, be patient, it may stop for a few seconds and start back up. Do not take the object off the turntable until it gives you the option to name the file.