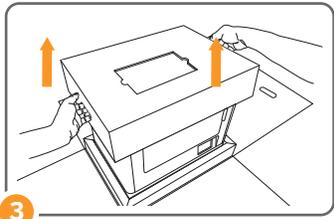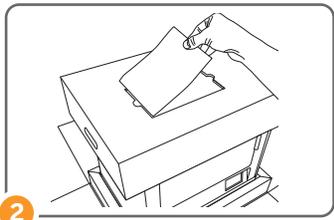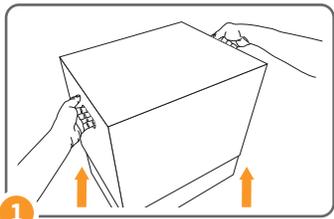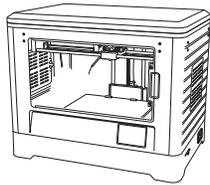# DREMEL® 3D
IDEA BUILDER

3D20 Quick Start Guide

⚠ WARNING **READ ALL OPERATING/SAFETY INSTRUCTIONS IN THE MANUAL AND FAMILIARIZE YOURSELF WITH THE DREMEL 3D20 BEFORE SETUP AND USE.** FAILURE TO COMPLY WITH THE WARNINGS AND INSTRUCTIONS MAY RESULT IN FIRE, EQUIPMENT DAMAGE, PROPERTY DAMAGE, OR PERSONAL INJURY.

1 Unboxing
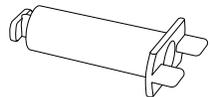

1

2

3

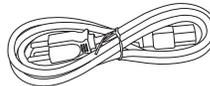## 2 Kit Contents

Dremel 3D20
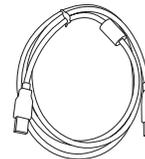
Instruction Manual

Quick Start Guide

1 Filament Spool

Spool Lock

Power Cable

USB Cable
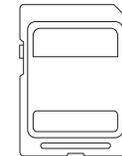
SD Card

Build Tape
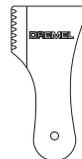
Object Removal Tool

Unclog Tool

Leveling Sheet

TIP: Save your Dremel 3D20 packaging for future transportation and storage.

Getting to Know Your Dremel 3D20
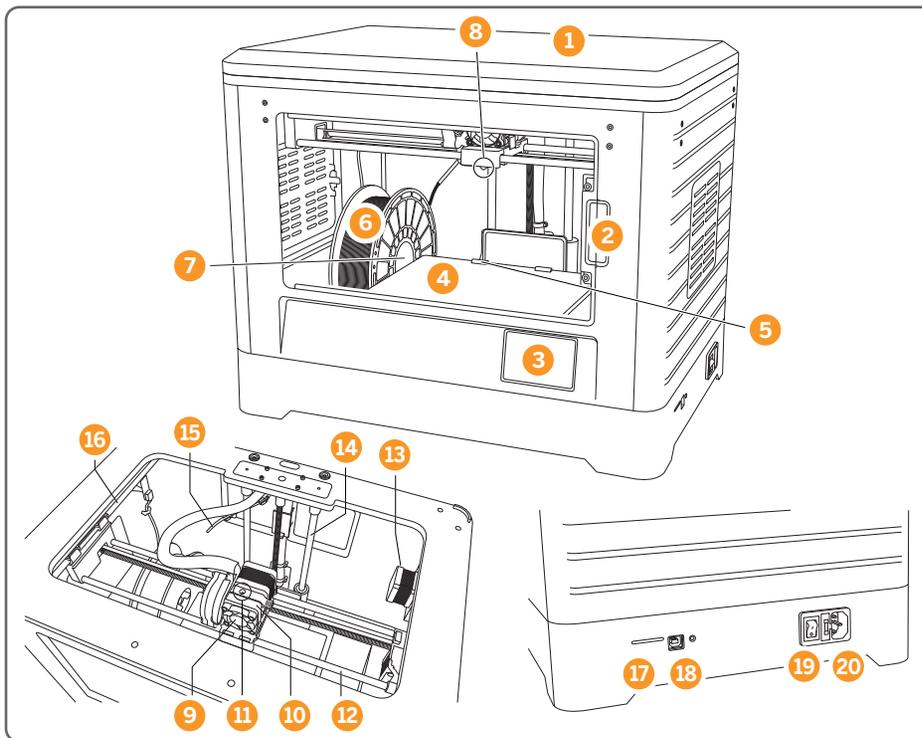
1. Lid
2. Door
3. Touch Screen
4. Build Platform
5. Build Platform Clips
6. Filament Spool
7. Filament Spool Holder/Lock
8. Extruder Tip
9. Extruder Fan
10. Extruder
11. Extruder Intake
12. X-Axis Guide Rails
13. Stepper motor (1 of 3)
14. Z-Axis Guide rail
15. Filament Guide Tube
16. Y-Axis Guide Rails
17. SD card Input
18. USB Input
19. Power Switch
20. Power Input

4   Getting Ready to Build

⚠ WARNING   **OBSERVE ALL PROVIDED WARNINGS AND SAFETY INSTRUCTIONS WHEN USING THE DREMEL 3D20.**
FAILURE TO DO SO MAY RESULT IN FIRE, EQUIPMENT DAMAGE, PROPERTY DAMAGE OR PERSONAL INJURY.

FILAMENT INSTALLATION

1. Ensure the power switch is in the off position, remove the lid and remove the build platform.

2. Place filament spool onto spool holder with spool being fed from the bottom towards the back of the Dremel 3D20. Insert spool lock into spool holder and rotate 90 degrees to lock in place.

3. Thread filament through filament guide tube.

4. Insert the filament coming from the filament guide tube into the extruder intake (top).

5. Adhere build tape over the build platform.

6. Install the build platform using the build platform clip to secure.

7. Plug power cord into outlet and turn on power switch.

8. Tap "Tools" on your Dremel 3D20's touch screen, then tap "Filament", then tap "Load Filament" and wait for the extruder to heat.

9. Once heated, filament will drawn through the extruder. Allow filament to exit the extruder for 10 seconds before tapping the return arrow to complete.
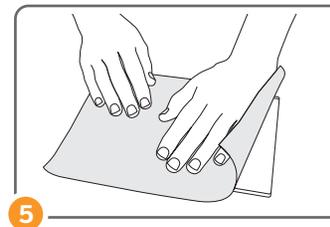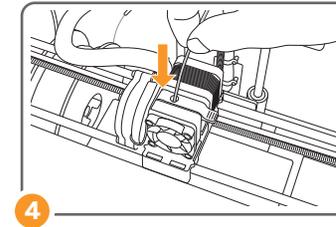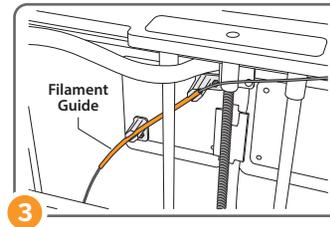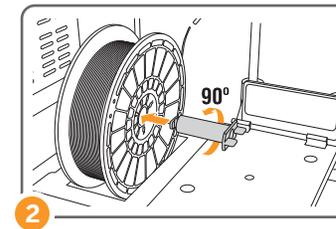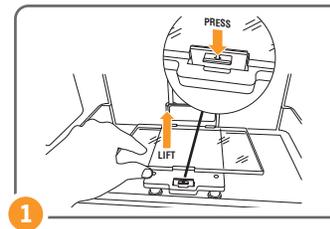
LEVELING BUILD PLATFORM

1. Tap "Tools" on your Dremel 3D20's touch screen and tap "Level".

2. First level the front left of the build platform.
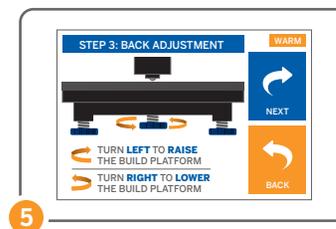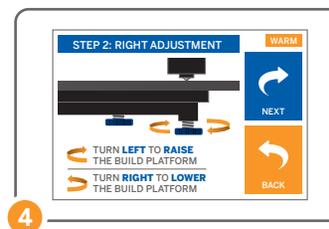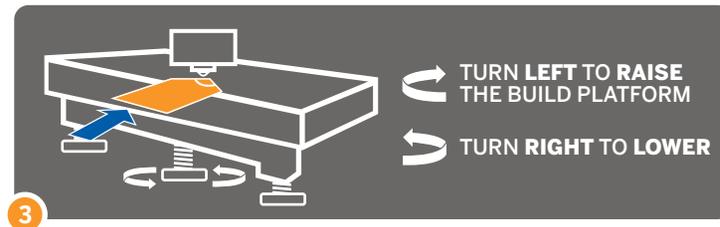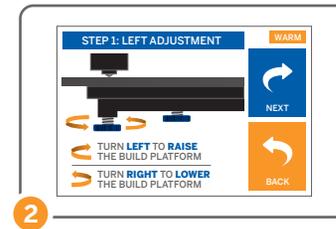
3. Place the leveling sheet between the extruder and build platform.

   a) If the leveling sheet cannot slide between the extruder and build platform, turn the knob counterclockwise until you can slide the leveling sheet between the extruder and build platform with some resistance.

   b) If the leveling sheet can slide between the extruder and build platform too easily, turn the knob clockwise until you can slide the leveling sheet between the extruder and build platform with some resistance.

4. Tap "Next" to move the build platform toward the right knob and repeat step above.

5. Tap "Next" to move the build platform toward the rear knob and repeat step above.

6. Tap "Finish" to complete the leveling process.

1

WARM

FILAMENT LEVEL HOME JOG MODE
SETTING PREHEAT ABOUT BACK

2

STEP 1: LEFT ADJUSTMENT   WARM
NEXT
TURN **LEFT** TO **RAISE** THE BUILD PLATFORM
TURN **RIGHT** TO **LOWER** THE BUILD PLATFORM
BACK

3

TURN **LEFT** TO **RAISE** THE BUILD PLATFORM

TURN **RIGHT** TO **LOWER**

4

STEP 2: RIGHT ADJUSTMENT   WARM
NEXT
TURN **LEFT** TO **RAISE** THE BUILD PLATFORM
TURN **RIGHT** TO **LOWER** THE BUILD PLATFORM
BACK

5

STEP 3: BACK ADJUSTMENT   WARM
NEXT
TURN **LEFT** TO **RAISE** THE BUILD PLATFORM
TURN **RIGHT** TO **LOWER** THE BUILD PLATFORM
BACK

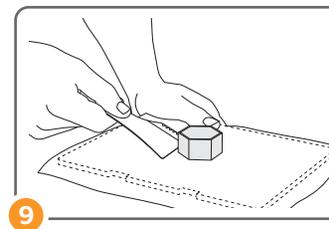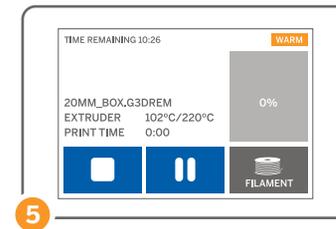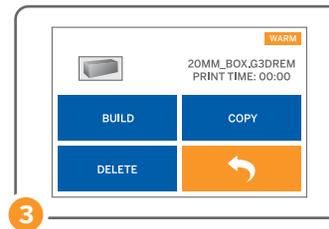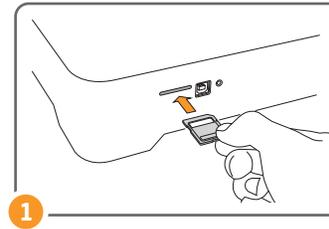## Building

BUILDING OUT OF THE BOX

1. Go back to the main screen on your touch screen and insert SD card included with your Dremel 3D20.

2. Tap "Build" on the touch screen, tap the SD card option, and use the up/down arrows to scroll.

3. Tap on the model file you would like to build and tap "Build".

4. Your Dremel 3D20 will align the extruder with the build platform and will begin heating the extruder.

5. Once the build temperature is reached, your model will begin to build.

6. Touch screen will display "Object Finished". Tap the check box to confirm. Wait until the touch screen indicates that the extruder temperature is "COOL".

REMOVING YOUR OBJECT FROM THE BUILD PLATFORM

7. Wait for the extruder to cool before removing your object.

8. With the object still attached, remove build platform from the build area.

9. Use your hand to peel your object from the build platform. If needed, gently use the object removal tool to remove object from build platform.

DREMEL 3D
IDEA BUILDER
WARM

BUILD   TOOLS

WARM
20MM_BOX.G3DREM
PRINT TIME: 00:00

BUILD   COPY

DELETE

TIME REMAINING 10:26   WARM

20MM_BOX.G3DREM
EXTRUDER   102°C/220°C
PRINT TIME   0:00

0%

FILAMENT

BEST PRACTICES

1. ALWAYS USE BUILD TAPE.

2. Ensure your build platform is level before every object.

3. Ensure spool is installed properly and can rotate freely.

4. When loading filament, allow Dremel 3D20 to extrude until material is consistent with the installed filament color.

5. It is important to stay near your Dremel 3D20 during operation and watch the Dremel 3D20 begin building objects.

6. Use object removal tool gently to avoid damaging the build platform or object.

7. Remove the build platform before removing the object.

OPERATING ENVIRONMENT

Room Temperature: 16-29° C (60 - 85° F)

Level workspace

Dry workspace environment

15.7" (400mm) — 19.1" (485mm) — 13.2" (335mm)

WALL — 8" (203mm) — 8" (203mm) — 8" (203mm) — 14" (356mm)
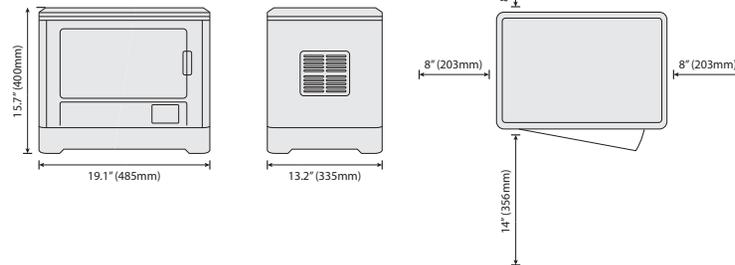
3D20 RESOURCES

Quick Start Guide	In box and www.dremel3d.com
3D20 Website	www.dremel3d.com
3D20 Customer Support	1-844-4DRML3D (1-844-437-6533) www.dremel3d.com
Dremel 3D20 Software	Installed from www.dremel3d.com or from SD card provided with the Dremel 3D20

8 Dremel 3D Community

This is for the Dremel Makers.

The ones who endlessly imagine new ideas. New projects. New missions.
Always wondering, What can I build?
How can I make it better?
More useful? More interesting? More mine.

The ones who forever fix, design, create, construct.
Building anything they want. Anything they need. Anything they're into.
Anything their home
Or the world
Has been waiting for.

The ones who share their ideas.
Build off other people's ideas.
And build them better.
Who believe that building a shiny new talent
is the greatest triumph of all.

The ones who, after they've built, allow themselves a brief moment of satisfaction
Before their hands and minds become impatient and start plotting
What to build next.

Build on, Dremel Maker. Build on.

JOIN THE COMMUNITY

1. Installing Dremel software from Dremel3D.com
2. Creating a Dremel maker profile on Dremel3D.com
3. Registering your Dremel 3D20 Idea Builder

Build On.