

# MakeIT

**PROGRAMME GUIDE**  
**MakeIT with Digital  
Cutters - ScanNCut  
Starter Session**



This document is intended for participants who have completed the above-mentioned briefing. Do not reproduce, copy, reformat, publish, distribute, upload, post, transmit, transfer in any manner or sell any of the materials in this document without the prior written permission of the National Library Board.

## REQUIRED MATERIALS

# Content

## 1 - The Hook

15 minutes

## 2 - The Activity

100 minutes

+ 10 minutes  
break

## 3 - Extensions

25 minutes

### 1. What is Digital Cutting?

### 1. Safely Operating the ScanNCut Digital Cutter

Identify the parts of the ScanNCut and how to safely operate it

### 2. Cutting Premade Designs

Navigate the ScanNCut's interface to find and cut a premade template

### 3. Creating a Custom Card

Create an account for CanvasWorkspace and customize a card to cut

### 1. Frequently Asked Questions

## REQUIRED MATERIALS

# Materials

## What You Need

### 1. Digital Cutting Machine -

Brother ScanNCut SDX1200

### 2. CanvasWorkspace -

Go to <https://canvasworkspace.brother.com/en> to sign up for an account

## What You Don't Need

### 1. ScanNCut Digital Cutter -

MakeIT provides access to the Brother SDX1200, which may be booked for up to 2.5 hours.

MakeIT will also provide scrap cutting materials, such as coloured cardstock and paper to support your projects. Feel free to bring your own as well!

## REQUIRED MATERIALS

# Learner's Profile - Confidence Card



Need help  
understanding  
content



Content is paced  
well and is  
understandable

If you need help during the programme, feel free to ask. Our team is happy to pace this content to your needs.

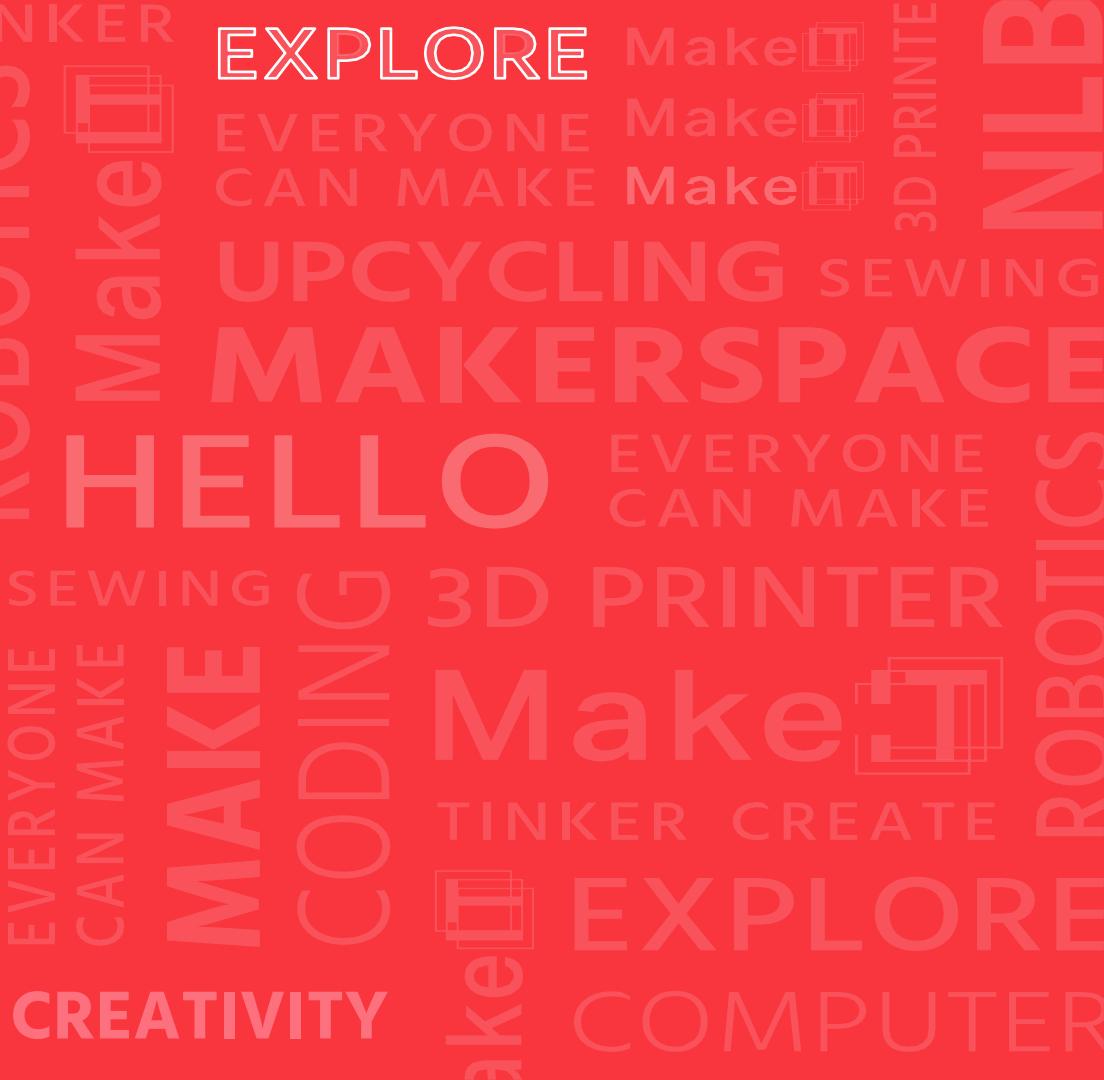
Feel free to also help others! If you notice somebody struggling, offer your support.

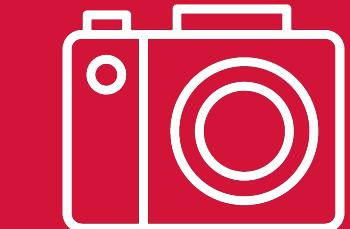
A Maker values curiosity, exploration, and openness.

# ScanNCut



Please follow the link above to access these learning materials.





MakeIT

# Smile!

## You might be our next star maker!

- Please be reminded that photos and/or videos of this programme and its participants may be taken.
- 
-

THE HOOK I SECTION 1.1 | 15 MINUTES

# Introduction to Digital Cutters

How do we cut things?  
That depends on what we need to cut.



Paper



Scissors



Wood



Saw



Steel



Angle Grinder



Leather



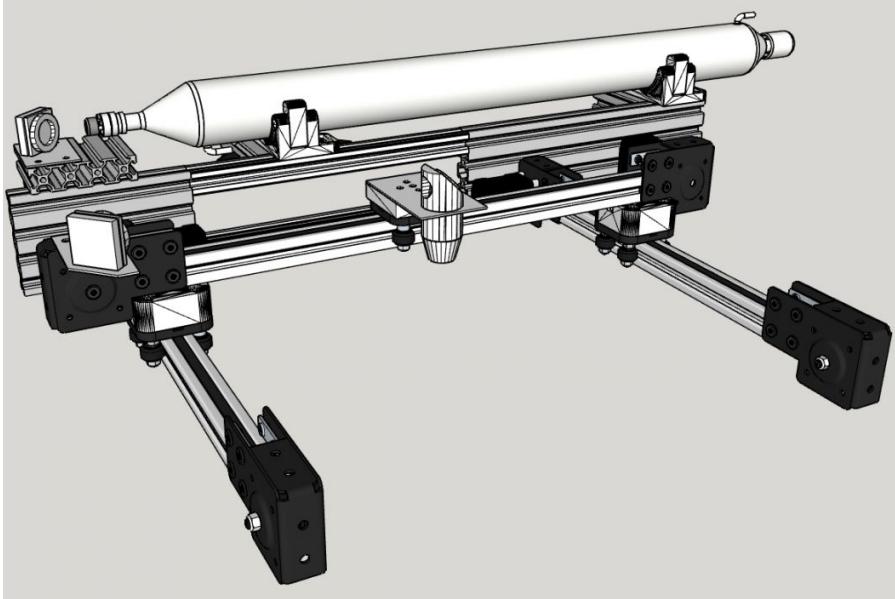
Rotary Cutter



## Introduction to Digital Cutters

**Manually cutting objects can be tedious for the following reasons:**

1. You don't have the appropriate tool available to do the job
2. You don't have the strength or dexterity to cut the workpiece yourself
3. You don't have enough time to cut your object
4. You don't want to waste excess material



**Digital, or automatic, cutters, use mechanisms to direct a cutting head across a workpiece. There are many kinds of digital cutters available, each designed to work with specific materials.**

# Introduction to Digital Cutters

## Die Cutting



A die is created that presses into the cut material, making the part.

## Vinyl Cutting



A bladed cutting head presses into cutting material, controlled by a computer.

## Laser Cutting



A laser beam fires into cutting material, controlled by a computer.

THE HOOK | SECTION 1.1 | 15 MINUTES

## Introduction to Digital Cutters

A digital cutting machine enables cutting of precise designs done on a computer.

Digital cutters help with the arduous process of “fussy cutting” (meticulous cutting of materials) quickly and accurately.

They can also cut different types of materials, such as paper, cardboard, vinyl, and even leather, provided the appropriate blade.



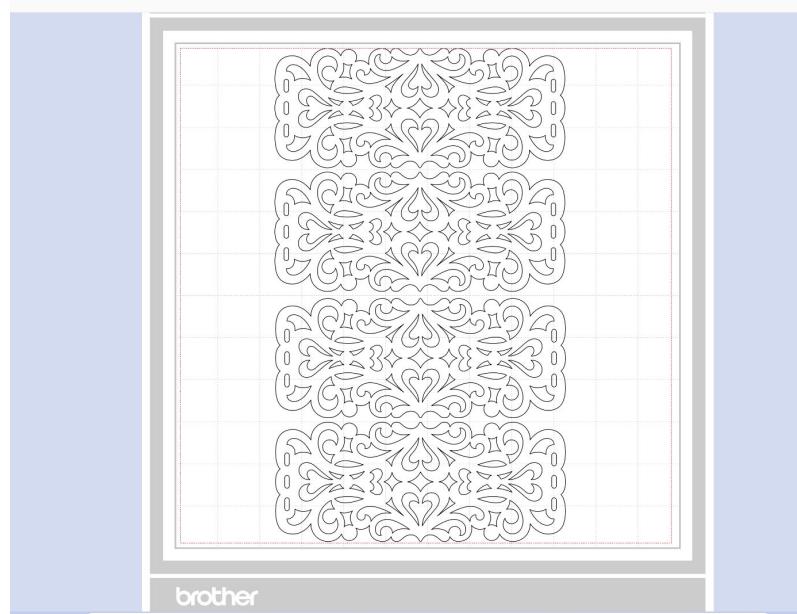
**Many digital cutter brands exist, such as Cricut, Silhouette, and Brother. Each company features machines at different price points and feature sets.**

THE HOOK | SECTION 1.1 | 15 MINUTES

## Introduction to Digital Cutters

Digital cutters take vector images, which are defined by paths rather than pixels, and convert those paths into cutting paths.

Vector editing tools such as Adobe Illustrator, Inkscape, Affinity Designer, Inkpad, and Vectr can be used to make files, then programmes such as CanvasWorkspace turn those files into instructions that the ScanNCut uses to cut.



**The most common vector file type is .svg.**

**CanvasWorkspace can convert .svg files into cutting files for the ScanNCut cutter, or .fcm files.**

## Introduction to Digital Cutters



This introductory video from scrapbook.com showcases a few models of digital cutter, and compares digital cutters with die cutters. It also describes the process of digital cutting.

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# WHAT ARE THE FEATURES OF A DIGITAL CUTTER?

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THE ACTIVITY | SECTION 2.1 | 10 MINUTES

## Safety and Features of ScanNCut

### WARNING

Do not touch the device while in operation, particularly near the feed bar.



The ScanNCut features a cartridge-based cutting blade, minimizing the risk of user injury.

Be careful while loading and unloading the cutting mat, taking care to keep your fingers away from the feed roll.



THE ACTIVITY | SECTION 2.1 | 10 MINUTES

## Safety and Features of ScanNCut

### 1. Operation Panel

Adjustable touch screen panel that allows you to control the machine and input settings.

### 2. Cutting Mat

The cutting mat binds a workpiece to allow the digital cutter to cut material.

### 3. Scanning lever

Adjust between scanning and cutting thicker materials



THE ACTIVITY | SECTION 2.1 | 10 MINUTES

## Safety and Features of ScanNCut

### 4. Feed rollers

Where the cutting mats are fed into the machine.

### 5. Storage trays

Tools and stylus are stored here. Please return tools here when you are done with the machine.



THE ACTIVITY | SECTION 2.1 | 10 MINUTES

## Safety and Features of ScanNCut

Cutting materials are placed on adhesive mats. The standard size of mats is 12" x 12" (30cm x 30cm), but other sizes exist.

There are two types of cutting mat, each designed for different materials:

### Low tack

Paper, cardstock, tracing paper

### Standard tack

Fabric, plastic sheet, magnet, extremely smooth materials



**At MakeIT, we typically use low tack adhesive mats. For more exotic materials, consult with MakeIT staff before trying to cut.**

THE ACTIVITY | SECTION 2.1 | 10 MINUTES

## Safety and Features of ScanNCut

The ScanNCut machine can scan in addition to cutting. Scanning an image lets someone cut over a lined image, save a design to computer, or allow for things such as sticker cutting.

An optional scanning mat can be used for scanning, though we recommend at MakeIT just to use the low tack adhesive mat for scanning.



# Safety and Features of ScanNCut

What can be cut at MakeIT?



## Paper

Basic prototyping of projects before committing to final materials.



## Cardstock

Create decorative crafts with varying thickness and texture.



## Vinyl Sticker

Make adhesive decals and stickers to apply to different surfaces.



## Cardboard

Structural prototyping before finalising materials with laser cutter.

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# HOW CAN WE MAKE A PROJECT WITH A DIGITAL CUTTER?

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THE ACTIVITY | SECTION 2.2 | 50 MINUTES

## Cutting Premade Designs

To practice using the ScanNCut, we will perform the following four activities:

1. Loading and Unloading the Tack Mat
2. Scan and Cut
3. Direct Cut (Patterns in the machine)
4. Cutting different materials

Follow the instructions provided by our facilitator, and if you have any questions, let us know!



**Like with any tool, it takes practice to get familiar with how to use a digital cutter. Fortunately, it doesn't take much time to setup the machine, so it's easier to make quick mistakes and to learn from them.**

THE ACTIVITY | SECTION 2.2 | 50 MINUTES

## Cutting Premade Designs

### TASK

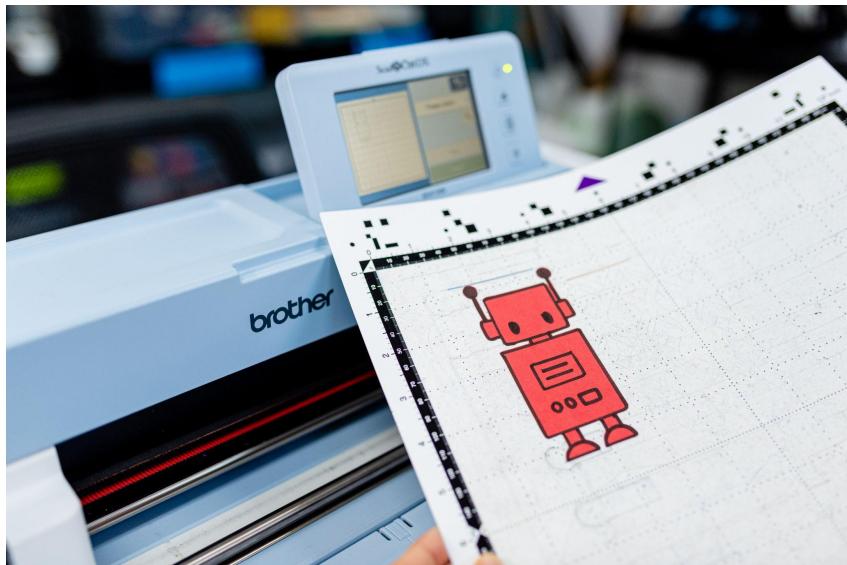
Load the cutting mat with a sketch, then scan that object on the ScanNCut

### TIME

20 minutes

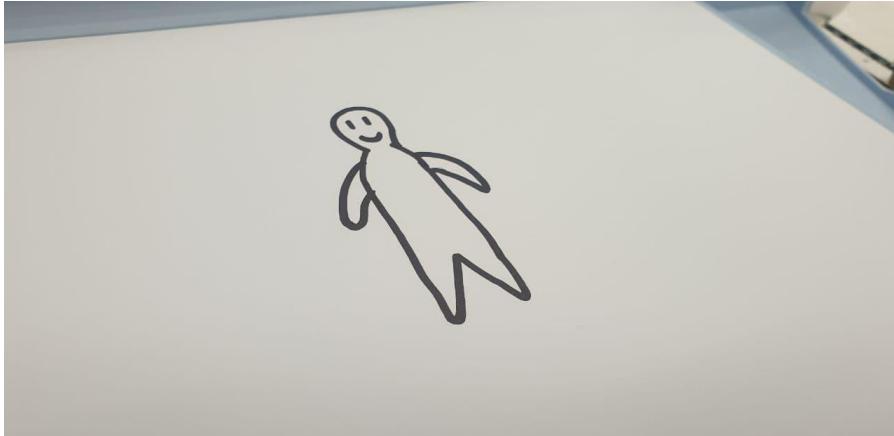
### MATERIALS

ScanNCut, Paper, pen or pencil



## Cutting Premade Designs

### 1. Scan and Cut an Object

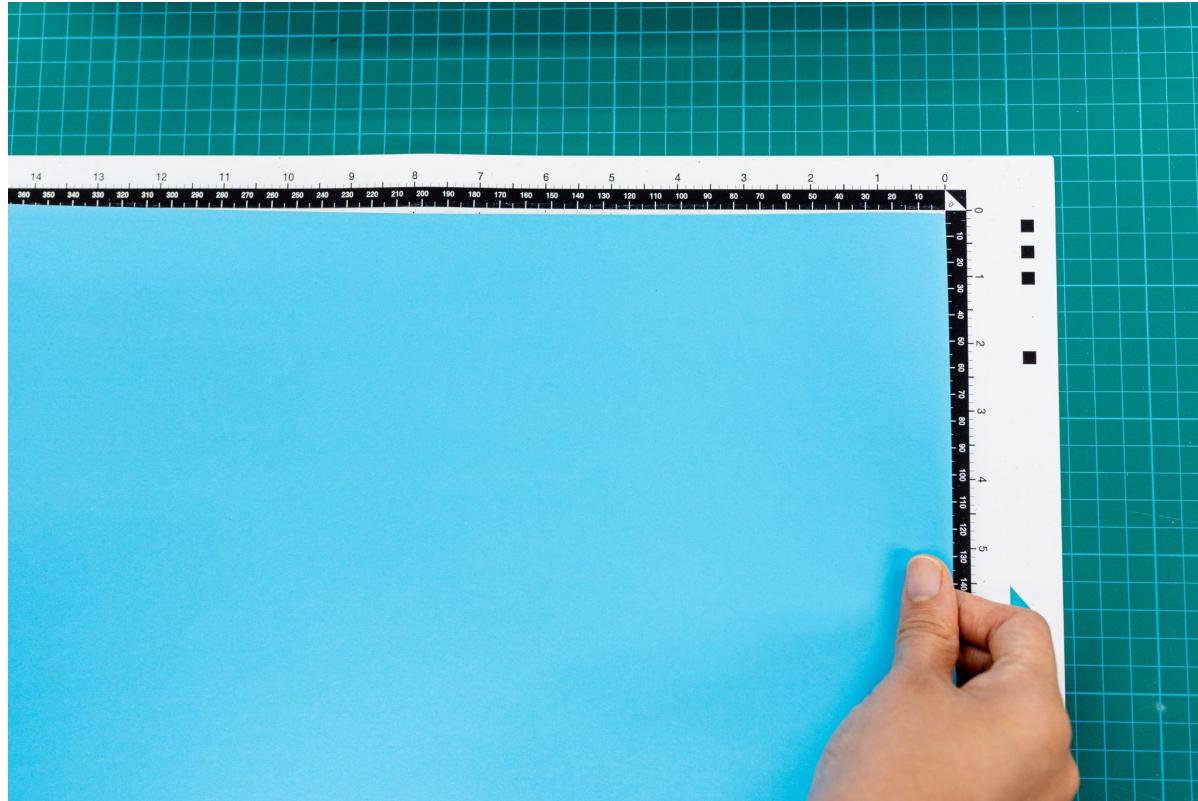


Pair up with a partner. Divide a sheet of cardstock into two parts.

Begin by taking a blank sheet of paper and drawing a character. Then draw a continuous outline around that character.

# Cutting Premade Designs

## 1. Scan and Cut an Object



Line up the corner of your paper with the top-left corner of the low tack cutting mat. Then press the paper to the mat using a side-to-side motion, like using a squeegee.

# Cutting Premade Designs

## 1. Scan and Cut an Object



Insert the paper into the ScanNCut, lining it up with the feed rolls. Once aligned, press the insert button to insert the mat.



# Cutting Premade Designs

## 1. Scan and Cut an Object



Once inserted, touch the Scan button onscreen and follow the screen prompt to scan the drawing.



# Cutting Premade Designs

## 1. Scan and Cut an Object



Once scanned, you may frame your image to let the ScanNCut determine where the lines in your image are.

## Cutting Premade Designs

### 1. Scan and Cut an Object



The lines of your drawing will be shown. You can select the lines you want to cut, making sure any lines you do not want cut are not selected.

# Cutting Premade Designs

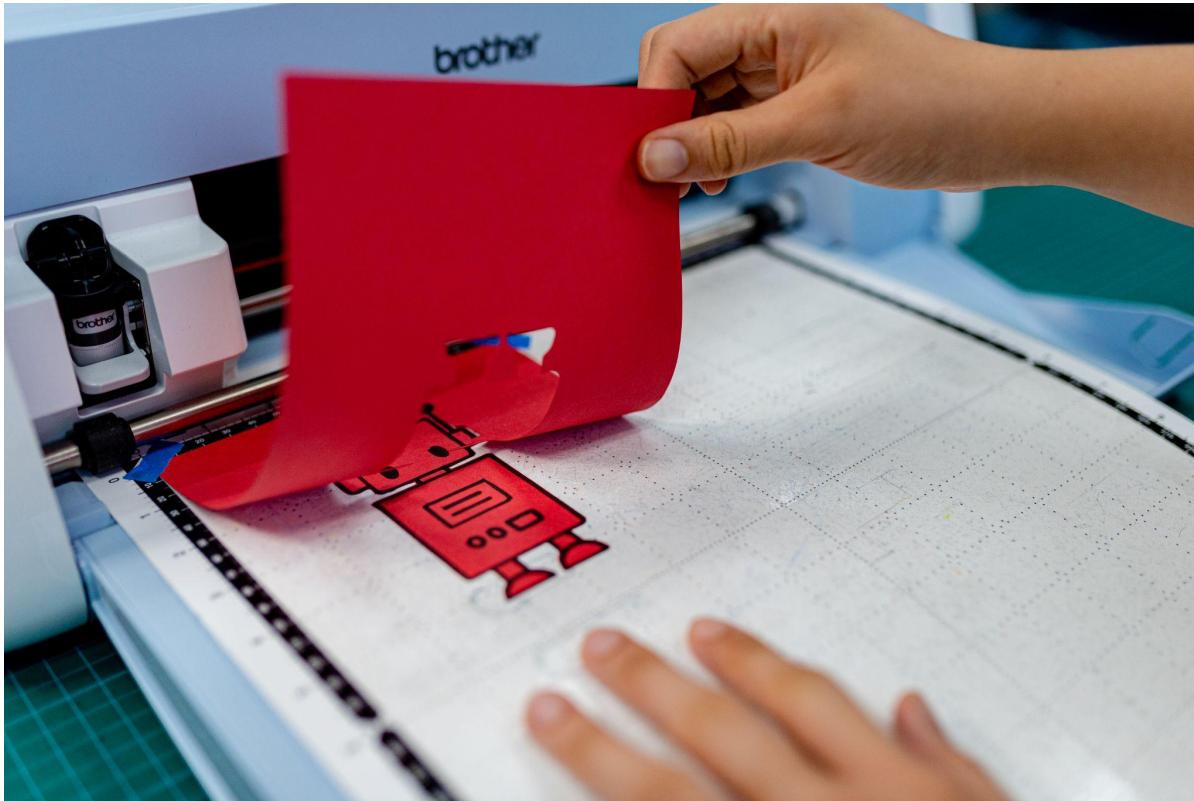
## 1. Scan and Cut an Object



Follow the prompt to begin cutting your piece. The blade will detect the thickness of the material and choose an appropriate cut setting.

# Cutting Premade Designs

## 1. Scan and Cut an Object



Once finished, remove the material. If the paper is sticky, you can use a spatula or hook tool (located in the tool drawer) to remove the material.

THE ACTIVITY | SECTION 2.2 | 50 MINUTES

## Cutting Premade Designs

### TASK

Find an existing pattern to cut with the ScanNCut

### TIME

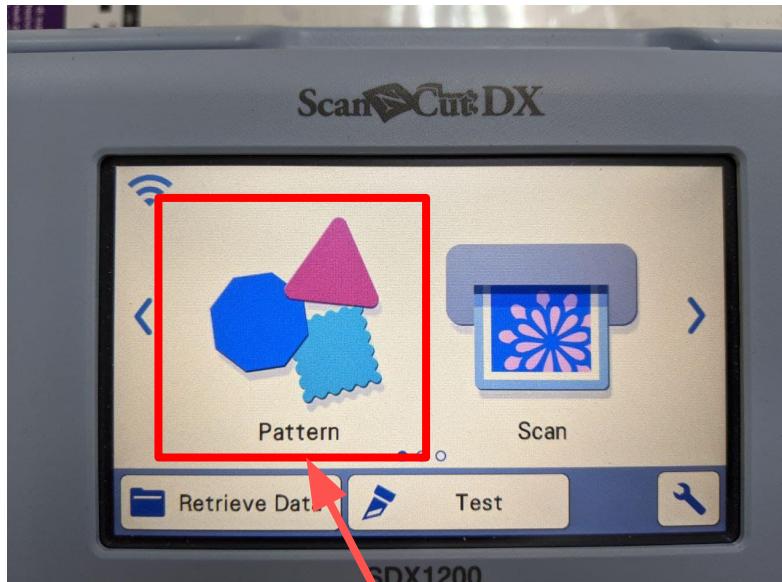
20 minutes

### MATERIALS

ScanNCut, Paper, pen or pencil



# Cutting Premade Designs



**Press “Pattern”.**

## 2. Cut a Pattern from ScanNCut



**Choose the pattern option to search for designs.**

# Cutting Premade Designs



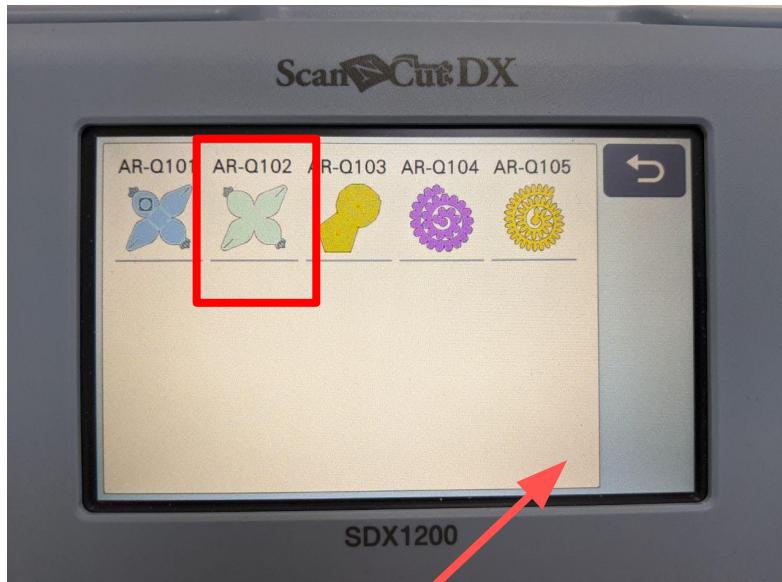
**Scroll through the options available to find an interesting design.**



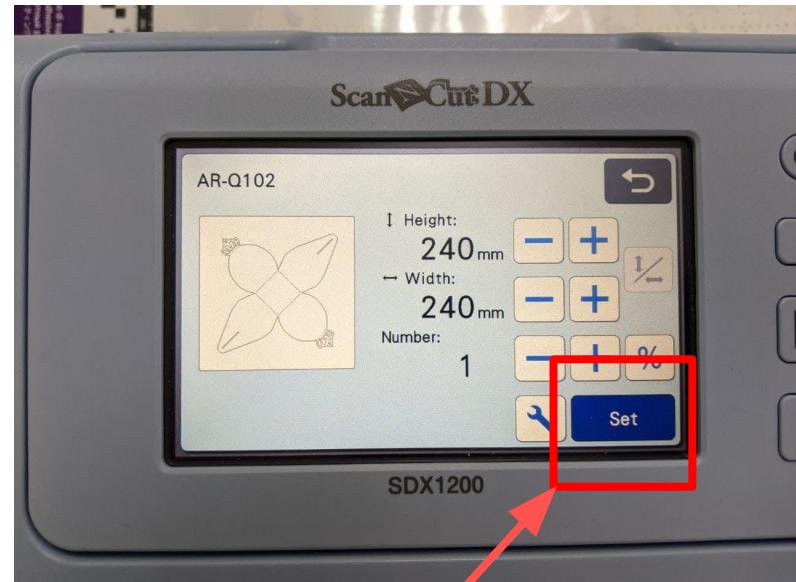
**Here, we select the gift box.**

# Cutting Premade Designs

## 2. Cut a Pattern from ScanNCut



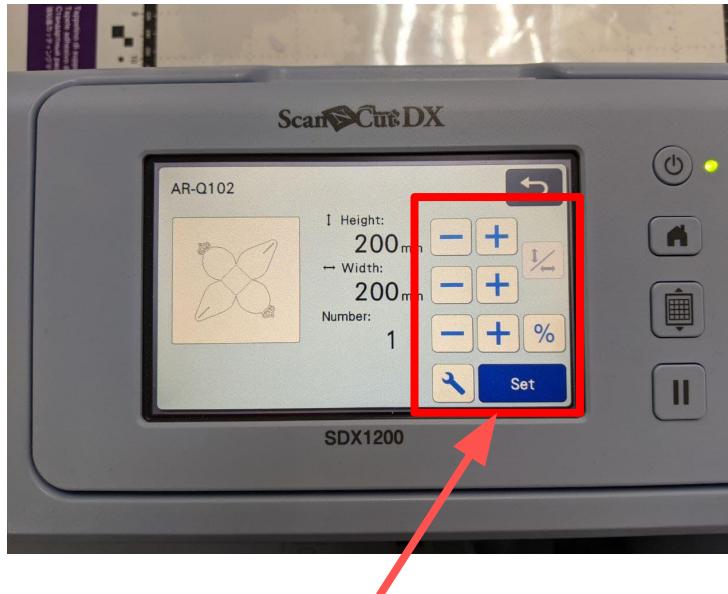
**There are 5 designs to choose from. Let's select the file named "AR-Q102".**



**Press "Set" to place your selected design.**

# Cutting Premade Designs

## 2. Cut a Pattern from ScanNCut



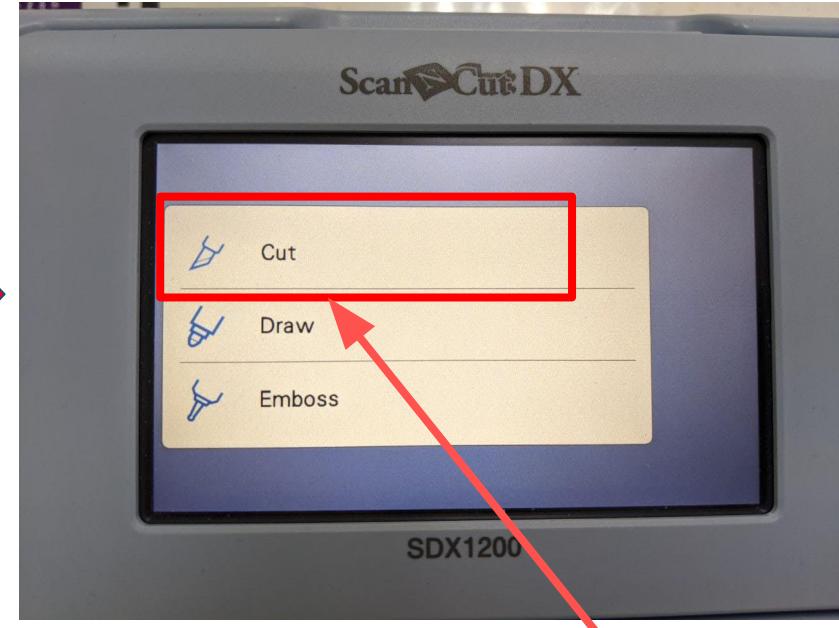
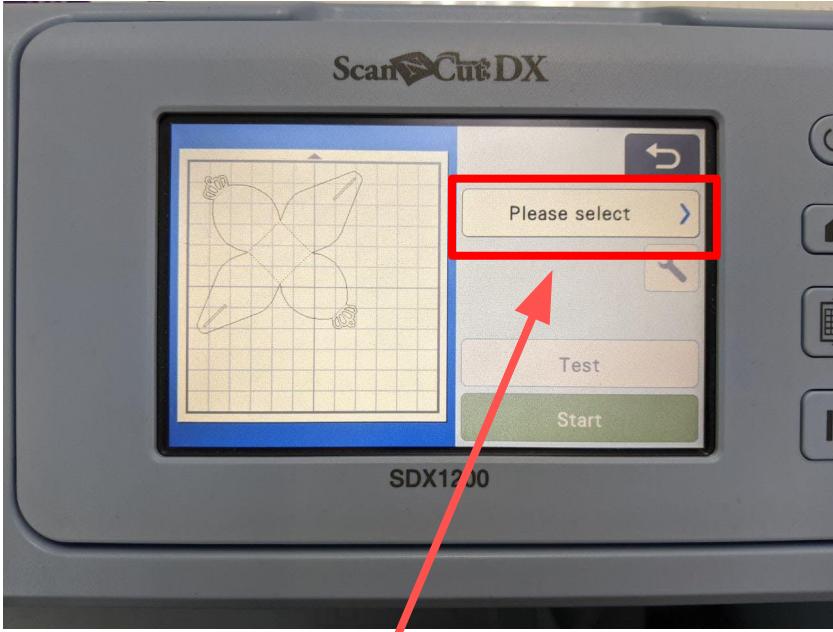
You can also adjust the size of the shape by adjusting the height and width.



Once set, the design will be placed by the top-left corner. You can "Edit" the shape or press "OK" to continue.

# Cutting Premade Designs

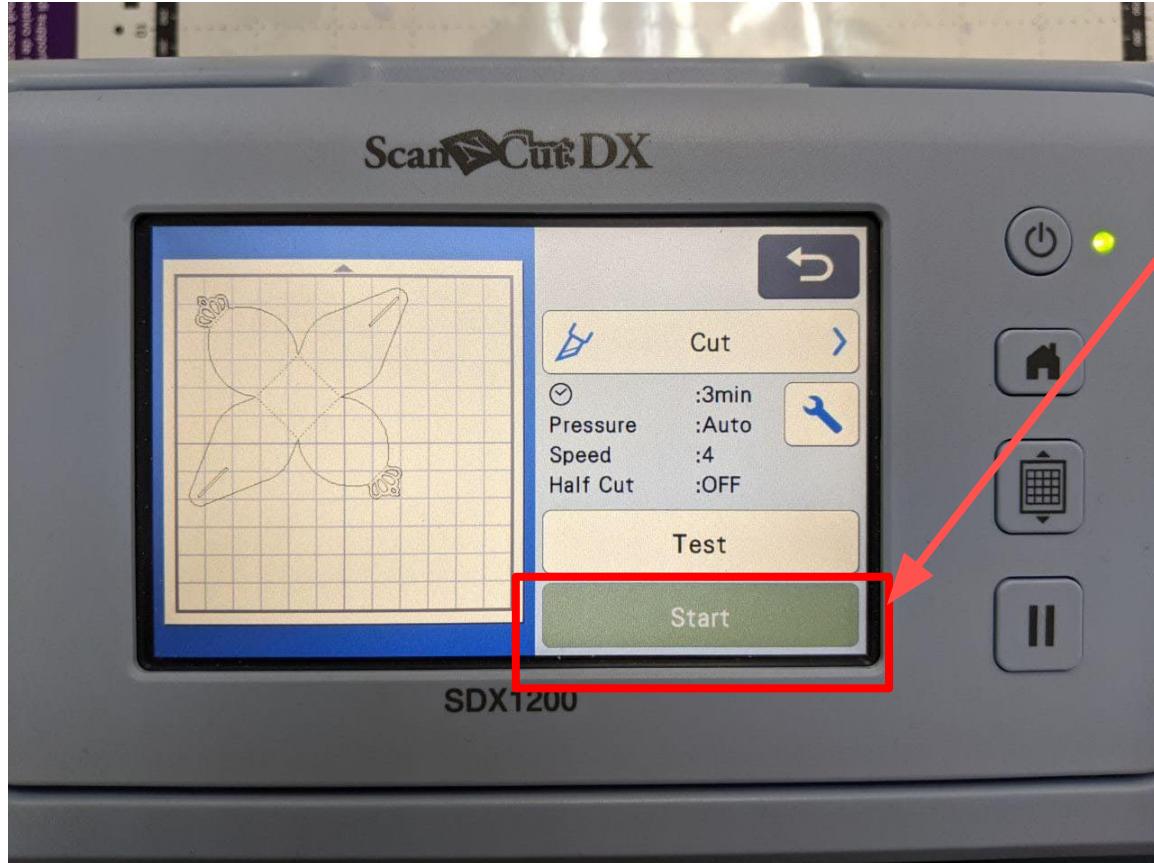
## 2. Cut a Pattern from ScanNCut



Once confirmed, press the **"Please select"** button to choose your operation. We will be selecting the **"Cut"** option.

# Cutting Premade Designs

## 2. Cut a Pattern from ScanNCut



To start the cutting process,  
press "Start".

The cutting should  
take a few minutes.

# BREAK



<https://go.gov.sg/makeit-onsite-loi>

Please follow the link above to provide feedback for this workshop.

NKER  
EXPLORE MakeIT  
EVERYONE MakeIT  
CAN MAKE MakeIT  
UPCYCLING SEWING  
MAKERSPACE  
HELLO EVERYONE  
CAN MAKE  
SEWING 3D PRINTER  
MAKE CODING  
TINKER CREATE  
CREATIVITY EXPLORE  
COMPUTER

# HOW CAN WE MAKE AND CUT OUR OWN DESIGNS?

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THE ACTIVITY | SECTION 2.3 | 40 MINUTES

## Creating a Custom Card

### TASK

Create a customized design using CanvasWorkspace

### TIME

40 minutes

### MATERIALS

ScanNCut, Laptop, Paper, CanvasWorkspace



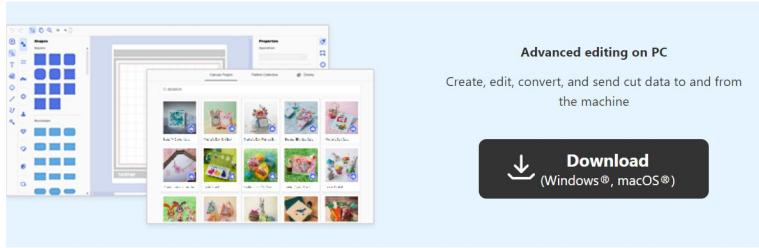
THE ACTIVITY | SECTION 2.3 | 40 MINUTES

## Creating a Custom Card

<https://canvasworkspace.brother.com/en>

**CanvasWorkspace is a digital design tool that lets users create projects that can be cut on the ScanNCut.**

It includes vector editing tools and features, as well as helping out with other operations such as combining shapes, creating offsets, and finding templates.



Advanced editing on PC

Create, edit, convert, and send cut data to and from the machine

Download  
(Windows®, macOS®)

The Login ID field is required.  
[Forgot my Login ID](#)

The Password field is required.  
[Forgot my password](#)

Stay Logged In (7 days)

**Log In**

**New**

The name of this website changed from 'ScanNCutCanvas' to 'CanvasWorkspace for Web'. You can use the Login ID you have been using.

See connection methods to transfer your cutting data to your cutting machine.

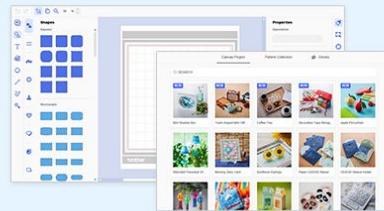
information

Disney patterns are resizable and can be flipped/mirrored. For previously activated collections, you will need to redownload and make sure you install the latest firmware in the machine.

More news Release Notes

THE ACTIVITY | SECTION 2.3 | 40 MINUTES

## Creating a Custom Card



### Advanced editing on PC

Create, edit, convert, and send cut data to and from the machine

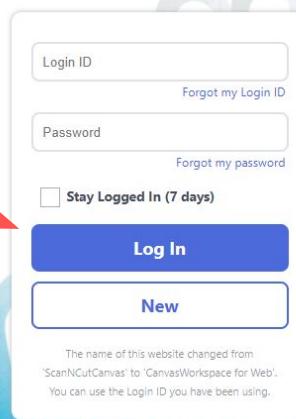
Download  
(Windows®, macOS®)

You will need to sign up for a Canvas Workspace account to start.

### \*\*\*Important Information\*\*\*

Maintenance of the CanvasWorkspace services

More fun is now available for  
ScanNCut/DesignNCut with  
this canvas.



The name of this website changed from  
ScanNCutCanvas® to 'CanvasWorkspace for Web'.  
You can use the Login ID you have been using.

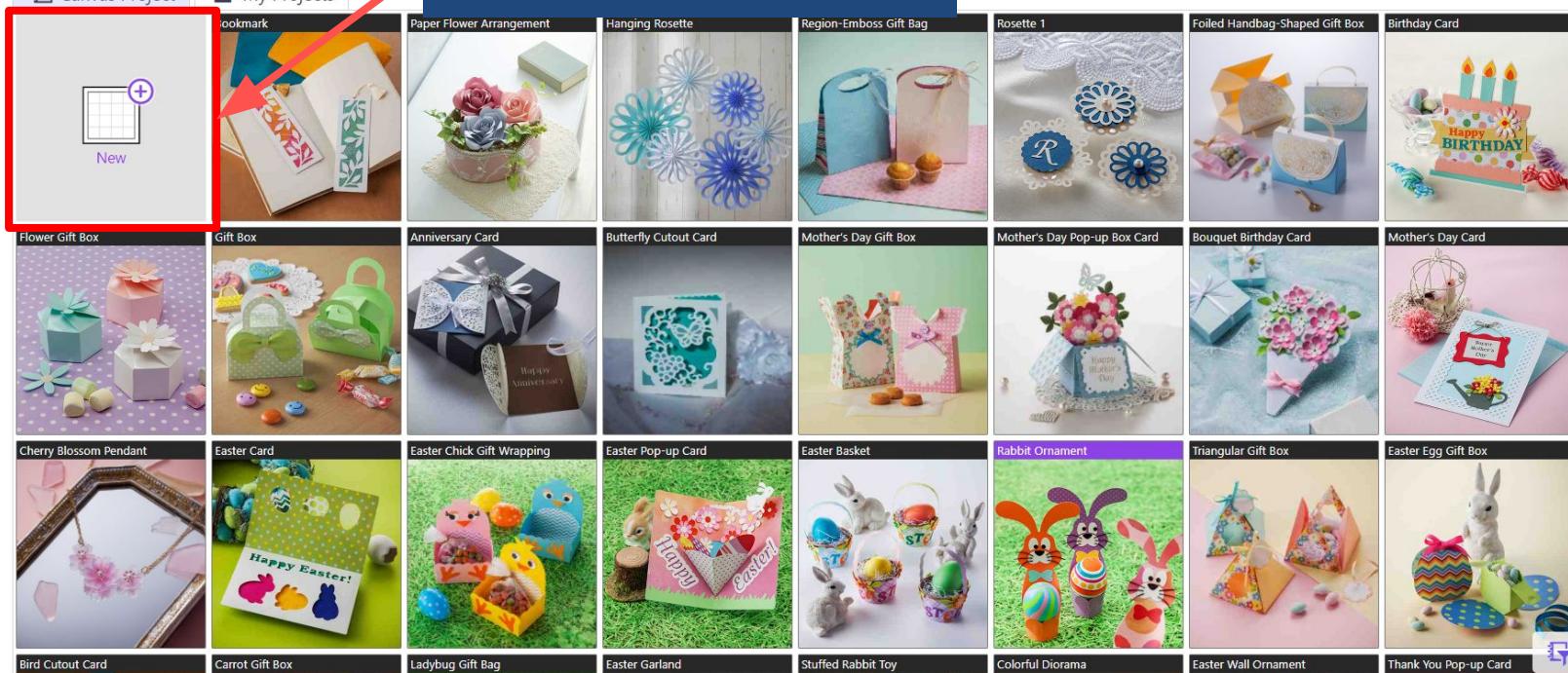
THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

CanvasWorkspace

Canvas Project My Projects

Open a new project.

**Important**

Please note the CanvasWorkshop services will be down for maintenance (4/26/2021). Please click here for more detailed information.

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## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

The screenshot shows the Canvas Workspace software interface. At the top, there's a toolbar with various icons: Project Title (highlighted with a red box and arrow), Download, Project, Edit, View, and some search/filter options. Below the toolbar is a sidebar labeled "Pattern" which includes "My Projects", "Basic", "Border", "Logo", and "Text". A red arrow points from the text in the bottom-left box to the "Text" option in the sidebar. The main workspace is a 12x12 grid with a dashed red border, representing a 12" by 12" mat. A large blue callout box on the right says, "This is your workspace. It is based on the 12" by 12" mat." Another blue callout box at the bottom left says, "Under 'Pattern', select 'Text'." A purple button labeled "Download" is visible on the left side of the workspace.

Project Title

Download

Project Edit View

Pattern

- My Projects
- Basic
- Border
- Logo
- Text

Do remember to rename your project.

This is your workspace. It is based on the 12" by 12" mat.

Under "Pattern", select "Text".

<https://canvasworkspace.brother.com/en/Home>

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

The screenshot shows the Canvas Workspace application interface. On the left, there's a font preview panel titled "Text" containing various font samples. A red box highlights the first two rows of a bold sans-serif font. A red arrow points from this panel to a blue callout box with the text "Select the font you would like to use." In the center, a large grid-based cutting mat displays a dashed rectangular outline. A red box highlights the top-left corner of this outline, and a red arrow points from it to another blue callout box with the text "Click on the area where you would like to start." The bottom of the screen shows measurement tools indicating a width of 2.41" and a height of 1.14". The top right corner of the screen shows the brother brand logo.

Download

Text

Import the following text, and then double-click the text object to change it.

ABCD	ABCD
АБВГ	АБВГ

Project Edit View

Project Title

49 %

Download

Click on the area where you would like to start.

Select the font you would like to use.

t: 2.41" w: 1.14"

brother

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card



Project Edit View

Project Title



37 %

[Download](#)

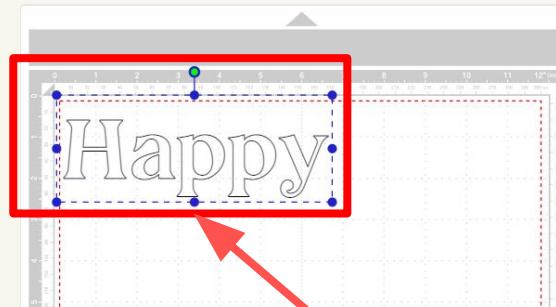
## Text



Import the following text, and then double-click the text object to change it.



t:2.41" w:6.50"



Type out your preferred text.



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## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

The screenshot shows the Canvas Workspace interface. On the left, there's a 'Text' panel with a 'Download' button and a preview area. Below it is a grid of font samples. A text object 'Happy Birthday' is selected in the center workspace, which has a bounding box and registration marks. A context menu is open over the text, listing options like Cut, Copy, Paste, Duplicate, Delete, Group, Ungroup, Weld, Divide, Remove Overlapped, Subtract, Bring to Front, Bring Forward, Send Backward, Send to Back, Create Offset Line..., and Properties... (which is highlighted with a red box and a callout). A red arrow points from the text 'Click on "Properties"' to the 'Properties...' option in the menu.

CanvasWorkspace

Project Edit View

Project Title

Download

Text

Import the following text, and then double-click the text object to change it.

ABCD ABCD

АБВГ АБВГ

t: 2.41" w: 6.50"

37 %

brother

Click on "Properties"

Cut Copy Paste Duplicate Delete Group Ungroup Weld Divide Remove Overlapped Subtract Bring to Front Bring Forward Send Backward Send to Back Create Offset Line... Properties...

THE ACTIVITY | SECTION 2.3 | 40 MINUTES

## Creating a Custom Card

The screenshot shows the Cricut Design Space interface. On the left, there's a preview area with a purple 'Download' button. In the center, a 'Properties' panel is open over a workspace. The workspace shows a grid and a ruler at the top. A red arrow points to the 'Character Spacing' section in the properties panel, which includes a minus sign, a zero, and a plus sign. A blue callout box contains the text: "Click ‘-’ on the character spacing option to squish the letters together."

Project Title

Download

ext

Import the following text, and then double-click the text object to change it.

ABCD	ABCD
АБВГ	АБВГ

Properties

Size and Angle

Maintain aspect ratio

Text

FO-W012:Cairo

Character Spacing: - 0 +

Color

Line Type

Cutting/Drawing Line

Cutting Line

Drawing Line

Fill the area in the outline with the drawing function.

Dash pattern:

t:2

• 48 •

• tinkermindsg

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

The screenshot shows the Canvas Workspace interface. On the left, there's a preview area with a purple 'Download' button. Below it is a 'Text' section with a preview of 'ABCD' in various styles. The main workspace shows the word 'Happy' in a decorative font. A red box highlights the 'Character Spacing' input field in the Properties panel, which is set to '-30'. Another red box highlights the text 'ppy' in the workspace, where the letters are overlapping. A red arrow points from the text in the workspace to the 'Character Spacing' field.

Properties

Size and Angle

Maintain aspect ratio

Character Spacing : -30

Color

Line Type

Cutting/Drawing Line

Cutting Line

Drawing Line

Fill the area in the outline with the function.

Dash pattern :

Notice that as the number decreases, the letters are overlapping each other.

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

The screenshot shows the Canvas Workspace interface. At the top, there's a navigation bar with 'Project', 'Edit', and 'View' tabs, and a search bar with the number '37'. Below the toolbar, there are icons for file operations like 'New', 'Open', 'Save', and 'Import'. A large central workspace contains the text 'Happy Birthday' in a decorative font. A context menu is open over the word 'Happy', listing options like 'Cut', 'Copy', 'Paste', 'Duplicate', 'Delete', 'Group', 'Ungroup', 'Weld' (which is highlighted with a red box and has an arrow pointing to it), 'Divide', 'Remove Overlapped', and 'Subtract'. To the left of the workspace, there's a 'Text' panel with a 'Download' button and a preview area showing various font styles for the letters 'ABCD'. A blue callout box at the bottom right contains the instructions: 'Close the properties window, then right-click on the selected text. Press "Weld" to combine the shapes together.'

Download

Text

Import the following text, and then double-click the text object to change it.

ABCD	ABCD
АБВГ	АБВГ

Close the properties window, then right-click on the selected text. Press “Weld” to combine the shapes together.

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

CanvasWorkspace

Project Edit View

Project Title  100%

Download

Text

Import the following text, and then double-click the text object to change it.

ABCD	ABCD

Notice that all the text is now joined together.

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

The screenshot shows the Canvas Workspace software interface. At the top, there's a toolbar with icons for Project, Edit, and various file operations like Open, Save, and Export. A red box highlights the 'Happy Birthday' text entry field. To the right, a blue callout box says 'Remember to rename your file.' Below the toolbar, a red box highlights the 'Download' button, which has a downward arrow icon. Another red arrow points from the 'Download' button to a text input field labeled 'Text' containing placeholder text: 'Import the following text, and then double-click the text object to change it.' To the left of the text input is a font preview grid showing various styles of the word 'ABCD'. On the right side of the workspace, there's a large outline of the word 'Happy' and some decorative shapes at the bottom.

CanvasWorkspace

Project Edit

Happy Birthday

Remember to rename your file.

Download

Text

Import the following text, and then double-click the text object to change it.

ABCD ABCD

ABCD ABCD

ABCD ABCD

ABCD ABCD

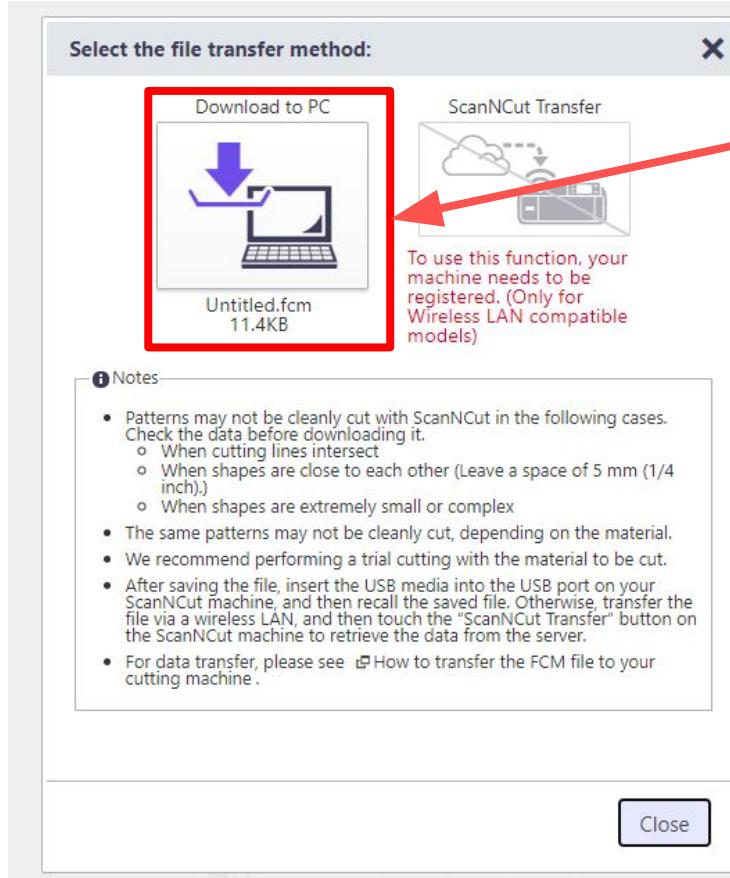
ABCD ABCD

ABCD ABCD

Once you are satisfied with the design, you may download it.

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card



Select the Download to PC option to download the required .fcm file. After we download the file, we can transfer it to a USB stick, then plug it into the ScanNCut.

Go ahead and try out other shapes and different functions on the Canvas Workspace.

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

Start a New Project. Under Canvas Project, search for Butterfly Cutout Card. If you can't find it easily, type it out in the Search bar.

The screenshot shows the Canvas Workspace interface. At the top, there's a navigation bar with a 'Canvas Workspace' icon, a 'Canvas Project' button, a 'My Projects' button, and a search bar labeled 'Q Search'. Below the navigation bar is a grid of craft project thumbnails. A red arrow points from the text above to the 'Butterfly Cutout Card' thumbnail, which is highlighted with a red border. Other visible project thumbnails include 'New', 'Bookmark', 'Paper Flower Arrangement', 'Hanging Rosette', 'Region-Emboss Gift Bag', 'Rosette 1', 'Foiled Handbag-Shape...', 'Flower Gift Box', 'Gift Box', 'Anniversary Card', 'Mother's Day Gift Box', 'Mother's Day Pop-up B...', and 'Bouquet Birthday Card'.

New	Bookmark	Paper Flower Arrangement	Hanging Rosette	Region-Emboss Gift Bag	Rosette 1	Foiled Handbag-Shape...
Flower Gift Box	Gift Box	Anniversary Card	Butterfly Cutout Card	Mother's Day Gift Box	Mother's Day Pop-up B...	Bouquet Birthday Card

## Creating a Custom Card

The screenshot shows the Canvas Workspace software interface. At the top, there's a navigation bar with a colorful icon, the text "CanvasWorkspace", and two tabs: "Canvas Project" (selected) and "My Projects". Below the navigation bar, there's a large preview image of a white card with a blue butterfly cutout design. Underneath the preview, there are two buttons: "Play the Video" (with a play icon) and "Get Recipe" (with a PDF icon). A red box highlights the "Play the Video" button, and a red arrow points from it to the text "If you would like to view how to assemble the card, you may watch the instructional video here." In the center, there's a section titled "Butterfly Cutout Card" with two items listed: "000148\_A" and "000148\_B". Each item has a small thumbnail image, a blue "Edit" button, and a purple "Download" button. The "Edit" button for item A is highlighted with a red box and a red arrow pointing to it.

Play the Video

Get Recipe

This movie is being streamed from YouTube.  
(Opening new window.)

000148\_recipe.pdf  
(760.8KB)

Butterfly Cutout Card

000148\_A 000148\_B

A project comes with all of the cut files to use on the ScanNCut. You can select each and either download them, or edit them. Click on the left “**Edit**” button to start.

If you would like to view how to assemble the card, you may watch the instructional video here.

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

The screenshot shows the Canvas Workspace interface. At the top, there's a navigation bar with a colorful icon, the text "CanvasWorkspace", and two tabs: "Canvas Project" and "My Projects". Below the navigation bar, there's a large preview image of a "Butterfly Cutout Card" featuring a blue butterfly on a white background with a decorative border. To the right of the preview, the card's name "Butterfly Cutout Card" is displayed, along with two small thumbnail images labeled "000148\_A" and "000148\_B". At the bottom left, there are buttons for "Play the Video" and "Get Recipe". The "Get Recipe" button has a tooltip: "This movie is being streamed from YouTube. (Opening new window.)". At the bottom right, there's a download link: "000148\_recipe.pdf (760.8KB)". A modal window titled "Edit Parts of Canvas Project" is overlaid on the workspace. The modal contains the text: "The selected parts will be imported into the edit screen as a new design. When it is saved, it will be saved in 'My Projects' of your account." At the bottom of the modal are two buttons: "OK" and "Cancel". A red arrow points from the text "Select 'OK' to begin editing the design." to the "OK" button.

Select “OK” to begin editing the design.

THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card



The design will appear here, aligned to the cutting mat dimensions.

You can begin to add other design elements into the design.

## THE ACTIVITY | SECTION 2.3 | 40 MINUTES

# Creating a Custom Card

The screenshot shows the Canvas Workspace interface. At the top, there's a navigation bar with 'Project', 'Edit', and 'View' tabs, along with icons for download, save, and search. Below the toolbar is a file list with 'Copy\_000148\_A'. The main workspace features a grid and a ruler. A large text shape containing the word 'Happy' is selected, indicated by a red border and a dashed selection box. To the left, a 'Text' panel displays various font styles for 'ABCD' and 'ABCĐ'. A red arrow points from a text box at the bottom to the selected text shape. On the right side of the workspace, there's a decorative graphic of a butterfly. A purple 'Download' button is located on the left side of the workspace.

Text

Import the following text, and then double-click the text object to change it.

ABCD	ABCĐ
ABCD	ABCĐ
ABCĐ	ABCĐ
<b>ABCD</b>	<b>ABCD</b>
ABCD	ABCD
ABCĐ	ABCĐ
ABCĐ	ABCĐ
ABCĐ	ABCĐ
АБВГ	АБВГ

Let's try to add some text to our card, as we practiced before. Click on "Text", and create a text shape.

THE ACTIVITY | SECTION 2.3 | 40 MINUTES

## Creating a Custom Card

The screenshot shows the Canvas Workspace software interface. At the top, there's a toolbar with icons for Project, Edit, and View. Below the toolbar, a file named "Copy\_000148\_A" is selected. A "Download" button is visible. On the left, a "Text" panel displays a grid of font styles for the letters A, B, C, and D. In the center workspace, a rectangular outline is being drawn on a grid background. A zoom menu is open on the right, showing options like Fit to Mat, Fit to Selection, Fit to All Content, and various zoom levels (25%, 50%, 100%, 200%, 400%). A red box highlights a sub-menu under "View" with the following options: "Show Only Cutting Line" (checked), "Show Only Drawing Line" (unchecked), "Show Mat Image" (checked), and "Show Properties" (unchecked). Below this menu, a "Units" section has "inches" selected. Red arrows point from the text "Under this tab you will find other options such as" and the callout box to the "View" sub-menu.

Under this tab you will find other options such as  
**"Show Mat Image"** which is good for checking the  
measurements of your design.

Under "View", you can check  
the **"Show Only Cutting  
Line"** to confirm what the  
machine will end up cutting.

## Creating a Custom Card

The screenshot shows the Canvas Workspace software interface. At the top, there's a toolbar with various icons. A red box highlights the 'Project' tab, and another red box highlights the 'Download' button, which has a downward arrow icon and the word 'Download' next to it. Below the toolbar, there's a text input field containing the text 'Happy Birthday'. To the right of the text input is a preview area showing the word 'Happy' in a stylized, wavy font. The preview area includes a ruler at the bottom. On the left side, there's a 'Text' panel with a grid of font samples for 'ABCD'. A large blue callout box with white text says 'Remember to rename your file.' A red arrow points from this callout to the 'Download' button. Another large blue callout box with white text says 'Once you are satisfied with the design, you may download it. Save it to your computer. The file name should be saved as .fcm. This is the format recognised by the machine for cutting or drawing.' A red arrow points from this callout to the preview area.

CanvasWorkspace

Project Edit

Happy Birthday

Download

Text

Import the following text, and then double-click the text object to change it.

ABCD	ABCD

Remember to rename your file.

Once you are satisfied with the design, you may download it. Save it to your computer. The file name should be saved as .fcm. This is the format recognised by the machine for cutting or drawing.

EXTENSIONS | SECTION 3 | 25 MINUTES  
**Digital Cutting Projects**

# EXTENSIONS

EXTENSIONS | SECTION 3.1 | 25 MINUTES

## Potential Projects

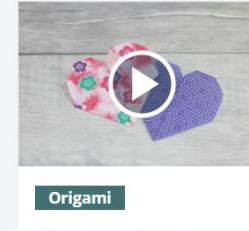
There are lots of projects to create with a digital cutter, but it might be tough to choose just one. Many resources are available that allow you to search for potential projects. Other than CanvasWorkspace, here are some other options.



Search...

[Knitting & croc...](#) ▾ [Sewing & quilti...](#) ▾ [Needlework](#) ▾ [Papercraft](#) ▾ [Arts & crafts](#) ▾ [Magazine Offers](#)

Home &gt; Welcome to gathered



Origami

Embroidery

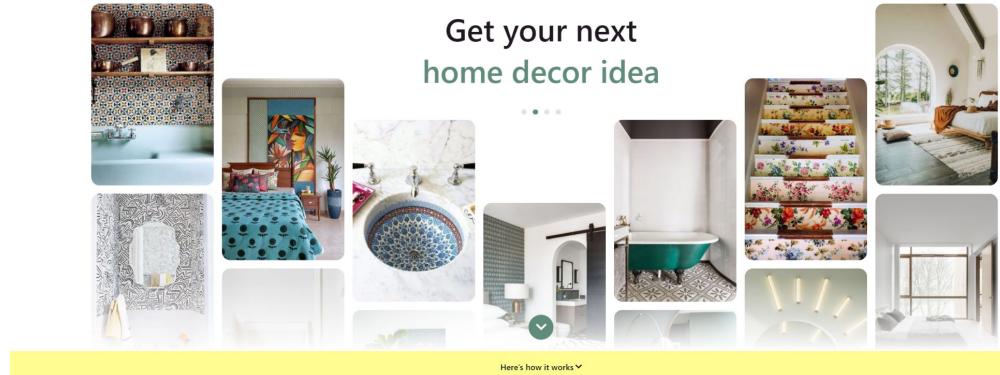
<https://www.gathered.how/papercraft/how-to-use-a-digital-cutting-machine/>

**Gathered features a number of project resources and competitions to whet your foot for digital crafting. Along with digital cutting, there are embroidery, sewing, and knitting projects to look through.**

EXTENSIONS | SECTION 3.1 | 25 MINUTES

## Potential Projects

Pinterest can be used to create mood boards, search for project ideas, or connect with other crafters that use digital cutting machines.



<https://www.pinterest.com>

Pinterest can be used as a jumping off point to collect inspiration from other sources.

## Potential Projects

Paper crafting can be extremely elaborate, with software being developed that lets people create their own paper models to cut on digital cutters.

You can find many papercrafting designs online by searching for the term, but you can also create your own designs from 3D models.



<https://tamasoft.co.jp/pepakra-en/>

**Pepakura has a learning curve, but there is a database of projects to look through and potentially cut. The software is free to try, but exporting designs requires payment.**

## Potential Projects

### Online Resources

#### **Brother Canvas Workspace**

Cloud based software to transfer custom designs to the machine.

<https://canvasworkspace.brother.com/>

#### **Database of free SVG designs**

<https://freesvg.org/>

#### **Free and open-source vector graphics editor**

<https://Online-convert.com>

EXTENSIONS | SECTION 3.1 | 25 MINUTES  
**Frequently Asked Questions**

# HOW CAN I APPLY WHAT I'VE LEARNED?

# Applying Knowledge



## Vector Design

1. Seek learning resources for Inkscape or CanvasWorkspace (either from online sources or through NLB OneSearch)
2. Participate in Inkscape challenges to build out your skills



## Digital Cutting

1. Find interesting digital cutting projects on CanvasWorkspace or online
2. Work towards layering and folding shapes into 3D
3. Share your designs in the MakeIT Facebook group

# Applying Knowledge



## Vector Design - Youtubers to Follow

Logos by Nick:

<https://www.youtube.com/@LogosByNick>

Brother Crafter:

<https://www.youtube.com/@BrotherCrafter>



## Digital Cutting - Youtubers to Follow

Balzer Designs:

<https://www.youtube.com/@BalzerDesigns>

Brother ScanNcut tutorials (Playlist):

<https://tinyurl.com/scanncut>

EXTENSIONS | SECTION 3.1 | 25 MINUTES

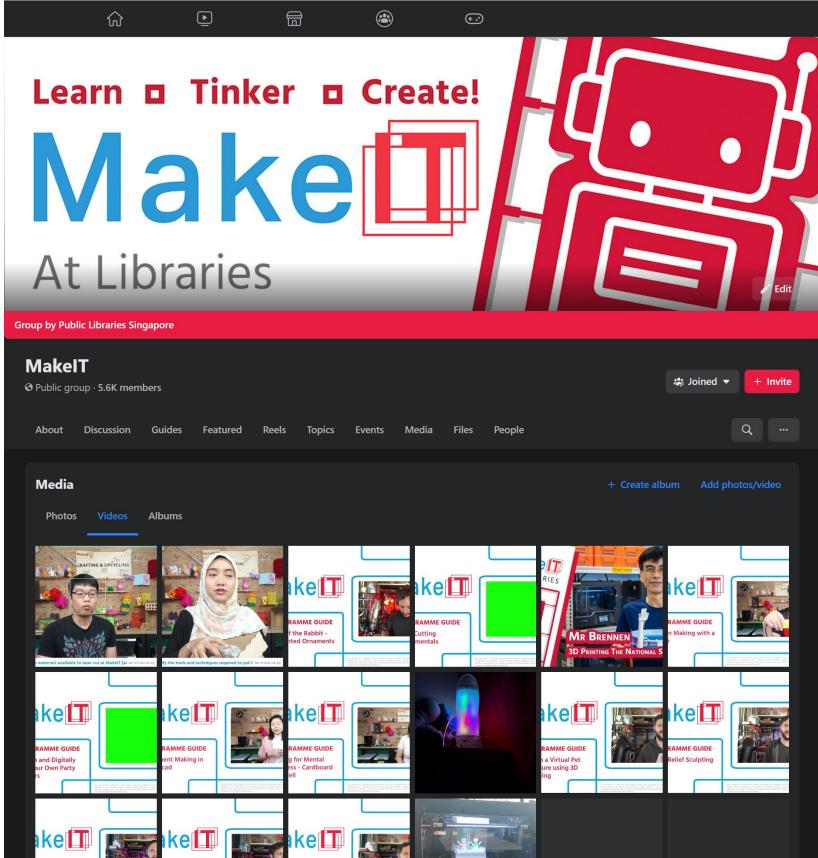
## Applying Knowledge

**Join our MakeIT Facebook Community Group to share ideas and access our online learning guides!**

To access additional guides on digital cutting, navigate to the Media tab, select Videos, and search for:

[Glass Paper Bookmark with Digital Cutting](#)

[Paper Clock with ScanNCut](#)  
[Mirror Hacks for the House](#)



The screenshot shows the Facebook group page for "MakeIT At Libraries". The header features the text "Learn □ Tinker □ Create!" and "At Libraries". Below the header, it says "Group by Public Libraries Singapore". The page has a "Joined" button and an "Invite" button. A navigation bar includes links for About, Discussion, Guides, Featured, Reels, Topics, Events, Media, Files, and People. The "Media" section is selected, showing a grid of video thumbnails. The thumbnails are titled with various projects such as "RAFTING & UNICORNS", "Mr. BRENNEN", "3D PRINTING THE NATIONAL'S", "GLASS GUIDE", "CARDBOARD", "MATERIALS", "CUTTING", "MENTAL", "HACKS", "PAPER", "BOOKMARK", "WITH", "DIGITAL", "CUTTING", "PAPER", "CLOCK", "WITH", "SCANNCUT", "MIRROR", "HACKS", "FOR", "THE", "HOUSE", and "HELLO". A QR code at the bottom left points to the group's website.

Scan the QR code or visit <https://www.Go.Gov.sg/makeit>

EXTENSIONS | SECTION 3 | 25 MINUTES

## Frequently Asked Questions

# TINKERING AT MAKEIT AT LIBRARIES

EXTENSIONS I SECTION 3.1 | 25 MINUTES

# MakelT at Libraries - Making a Booking

## Simplybook

Equipment bookings are handed through Simplybook. Talk to our Centre Manager to register for an account, then visit

<https://makeitsq.simplybook.asia/v2/> to book equipment.



### Opening Hours

MON	Closed
TUE	Closed
WED	12:00 - 20:30
THU	12:00 - 20:30
FRI	12:00 - 20:30
SAT	12:00 - 20:30
SUN	12:00 - 20:30

### MakelT at Libraries

Get creative at NLB's MakelT at Libraries, where you can create, tinker, and make with the power of tech! Try 3D printing, robotics, coding, and other crafting tools of the future, with hands-on activities, workshops, and co-making spaces that are free-to-use for all library members in Singapore.

Besides 3D printers and 3D pens, there are new equipment available for use during tinkering. Certification is required and will be enabled after completing the starter session. Sign up for the starters at <https://go.gov.sg/nlb-makeit-events> (no expertise or experience is required).

MakelT at Libraries is Open on:  
Wednesdays - Sundays  
12pm - 830pm

MakelT at Libraries is Closed on:  
Mondays & Tuesdays, Public holidays and the eves of New Year, Chinese New Year and Christmas

Please note the following:

- From 1st September 2024, Tinkering sessions will be from 12pm-2.30pm, 3pm-5.30pm and 5.30pm-8pm.
- For safety, equipment certification and tinkering are recommended for ages 15 and up.
- MakelT will be closed daily between 2.30pm-3pm for administrative purposes.
- One booking can be made up to three weeks in advance per certification (slot availability subject to changes)

Please complete the current booking before creating more bookings.

# MakelT at Libraries - Making a Booking

Bookings are available from Wed - Sun at the following times:

12:00pm-2:30pm

3:00pm-5:30pm

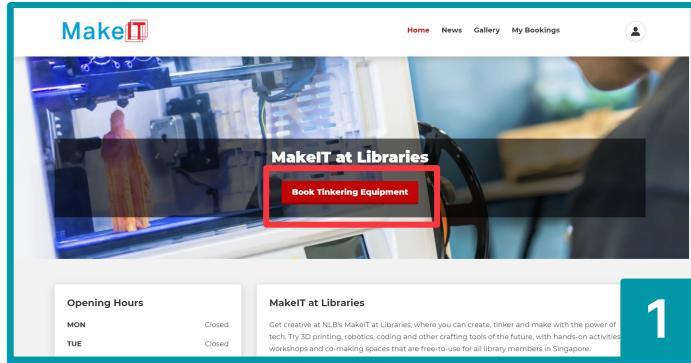
5:30pm-8:00pm

Equipment will be unavailable during public programmes and special engagements, with three weeks notice provided.

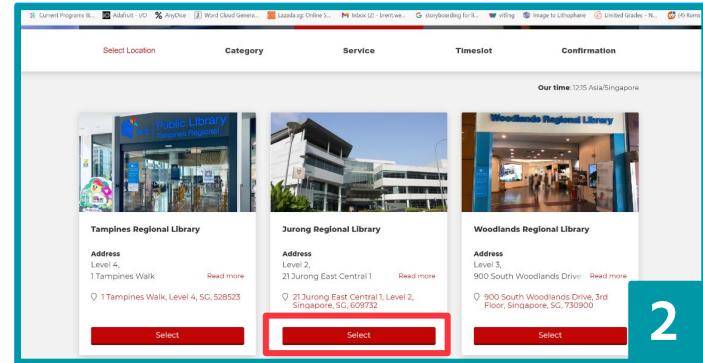


EXTENSIONS I SECTION 3.1 | 25 MINUTES

# MakeIT at Libraries - Making a Booking

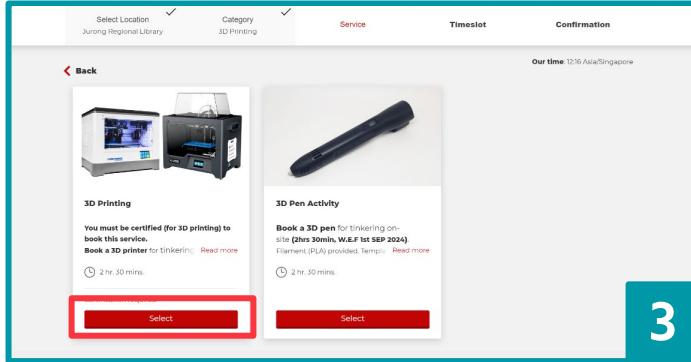


Once you have logged in,  
click on “Book Tinkering  
Equipment”.

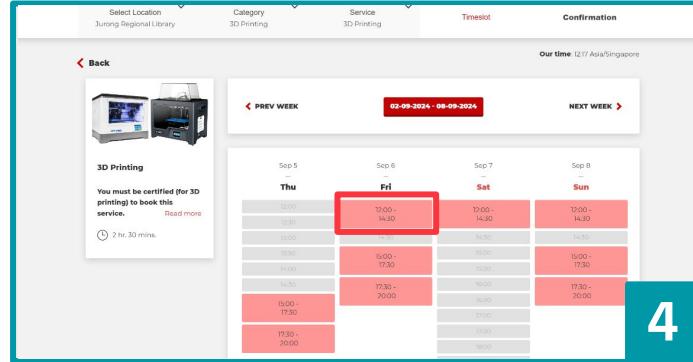


You will be redirected to a  
page that allows you to  
choose which MakeIT  
branch you will like to visit.  
Select one of the branches  
by clicking the respective  
branch “Select” button.

# MakelT at Libraries - Making a Booking



**Click the “Select” button respective to the equipment that you will like to use.**  
**Note: Bookings for most equipment can only be placed once you have gone for the required training.**



**Slots available for booking will be displayed, click on the slot that you will like to book.**

**Red - Available for booking**  
**Grey - Unavailable**

# MakelT at Libraries - Making a Booking

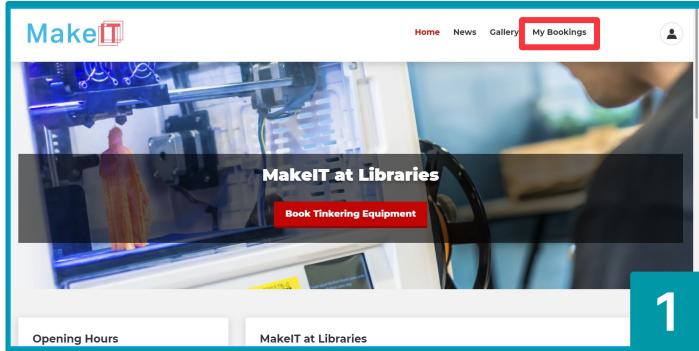
The screenshot shows a booking confirmation interface. At the top, there are dropdown menus for 'Select Location' (Jurong Regional Library), 'Service' (3D Printing), and 'Timestamp' (01-07-2021 12:00). Below this, the current time is displayed as 'Our time: 11:20 Asia/Singapore'. A 'Back' button is on the left. The main area has a title 'PLEASE, CONFIRM DETAILS' and a message 'You are logged in as [username] Logout'. It shows a booking for '3D Printing' on '01-07-2021' at '12:00' at '21 Jurong East Central 1, Level 2, Singapore'. The category is '3D Printing'. There is a dropdown for 'Select certification' containing '3D printer certification [21-11-2020 - 21-11-2022]'. Buttons for 'Add another service' and 'Confirm booking' are at the bottom. A large teal number '5' is overlaid on the bottom right.

Ensure that you have selected the correct slot and click on “Confirm booking”.

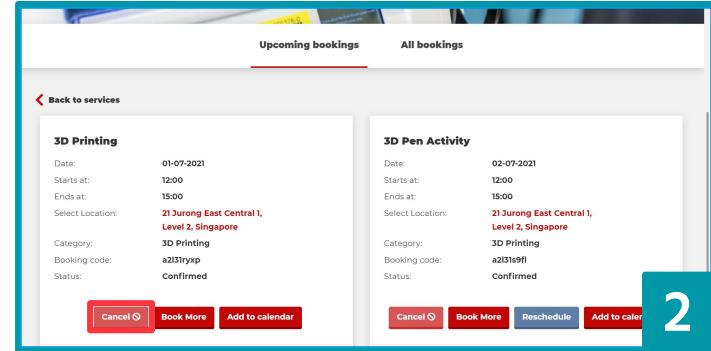
The screenshot shows a confirmation page after a booking. A blue header bar says 'You've successfully reserved the service. Please check your email to see the notification.' A 'Back to services' button is on the left. The main area displays booking details: Date 01-07-2021, Starts at 12:00, Ends at 16:00, Select Location 21 Jurong East Central 1, Level 2, Singapore, Category 3D Printing, Booking code 4239742, and Status Booked. Buttons for 'Cancel', 'Book More', 'Add to calendar', 'Show all bookings', and 'Back to site' are at the bottom. A large teal number '6' is overlaid on the bottom right.

You will be redirected to a confirmation page with your booking details. Should you need to cancel your booking, you may click “Cancel”.

# MakeIT at Libraries - Cancelling your Booking

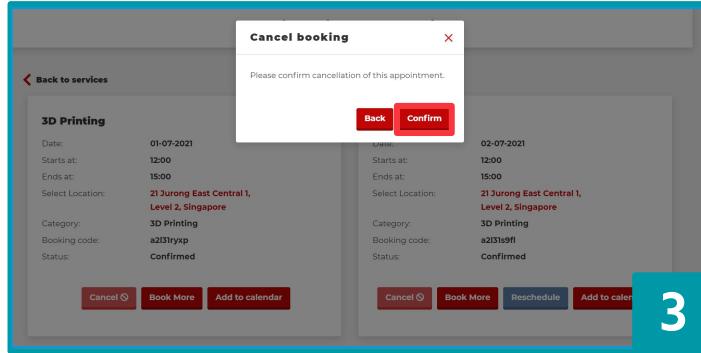


Once you have logged in,  
click “My Bookings”.

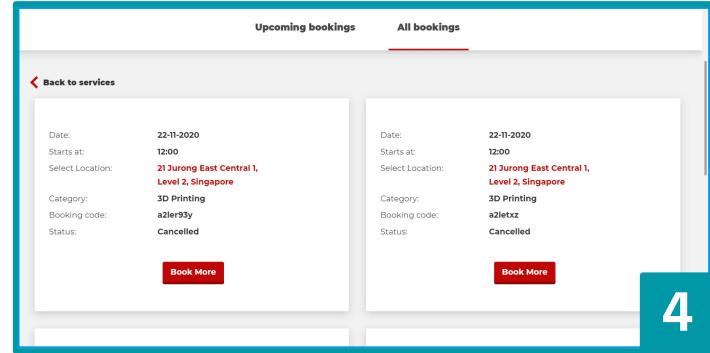


Your upcoming bookings  
will be displayed as shown  
above. To cancel your  
booking, click “Cancel”.

# MakeIT at Libraries - Cancelling your Booking



Click “Confirm” to cancel the booking.



To see all past and future bookings, click on “All bookings”.

# Frequently Asked Questions

## 1. How do I book a ScanNCut Digital Cutter?

Register as a user for MakeIT's Simplybook booking system, and book an available time slot for the ScanNCut digital cutter.

## 2. How long can I use the Digital Cutter per booking?

Bookings are limited to 2.5 hours. If you'd like to extend your booking to a second session, inform MakeIT staff and they will accommodate if slots are available during the next public tinkering session.

## 3. How many Digital Cutters can I book? Can I book multiple Digital Cutters?

You may only book 1 Digital Cutter at a time within MakeIT.

## 4. Can I choose which Digital Cutter to use?

Digital Cutters are booked on a first-come, first-served basis. Arrive at your allocated time on time to begin using one of the available Digital Cutters.

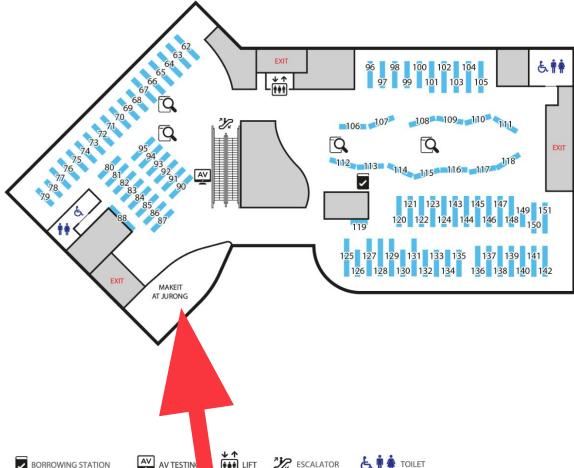
## 5. Can I bring my own materials for cutting?

Basic cutting materials, such as paper and coloured cardstock, are provided. If you wish to cut more exotic materials, enquire with MakeIT staff to see if that request may be honoured. MakeIT staff reserve the right to refuse cutting of materials if deemed unsafe.

# MakelT at Jurong

JURONG REGIONAL LIBRARY • LEVEL 2

MAP DIRECTORY	
62 – 87	Adults' Collection
88, 119	Fiction
90 – 95	Accompanying Items
96 – 98	Audiobooks & Audiovisuals
98 – 100	Travel
101, 102	Health
103 – 105	Recreation
106 – 111	Cookery
112 – 118	Arts
120 – 124	Business
125 – 127	Computer
127 – 151	Comics
	General Non-Fiction



## Location

Jurong Regional Library,  
2nd Floor

## Address

21 Jurong East  
Central 1  
Singapore  
609732

## Closest MRT Station

NS1 EW24 JE5  
Jurong East

## Opening Hours

Wednesday -  
Sunday, 12 - 8PM

# MakelT at Tampines

TAMPINES REGIONAL LIBRARY • LEVEL 4

## MAP DIRECTORY

**1 & 6**  
2  
1, 2

Hanyu Pinyin Collection  
Bilingual Collection  
Accompanying Items  
(Hanyu Pinyin & Bilingual)

**14 - 16**  
5  
5, 16

Children's Simple Fiction  
English  
Chinese  
Accompanying Items

**32 - 33**  
31  
31

Teens' Non-Fiction  
English  
Chinese  
Malay  
Tamil

**9 - 13, 16 - 18**  
2 - 3  
7  
8  
3, 7, 8, 9

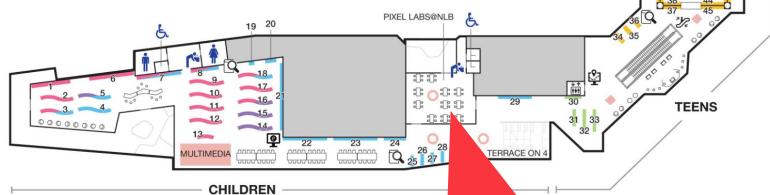
Children's Non-Fiction  
English  
Chinese  
Malay  
Tamil  
Accompanying Items

**18 - 29**  
3 - 5  
7  
8  
5, 7, 8, 29

Children's Fiction  
English  
Chinese  
Malay  
Tamil  
Accompanying Items

**37 - 54**  
34  
35  
36

Teens' Fiction  
English  
Chinese  
Malay  
Tamil



CATALOGUE   DIRECTORY   eKIOSK   LIFT   \* 4 LANGUAGES   ESCALA  
MALE TOILET   FEMALE TOILET   HANDICAP TOILET   NURSING ROOM   WATER DISPEN

## Location

Tampines  
Regional Library,  
4th Floor

## Address

1 Tampines Walk,  
#02-01 Our  
Tampines Hub,  
Singapore 528523

## Closest MRT Station

**EW2 — DT32**  
**Tampines**

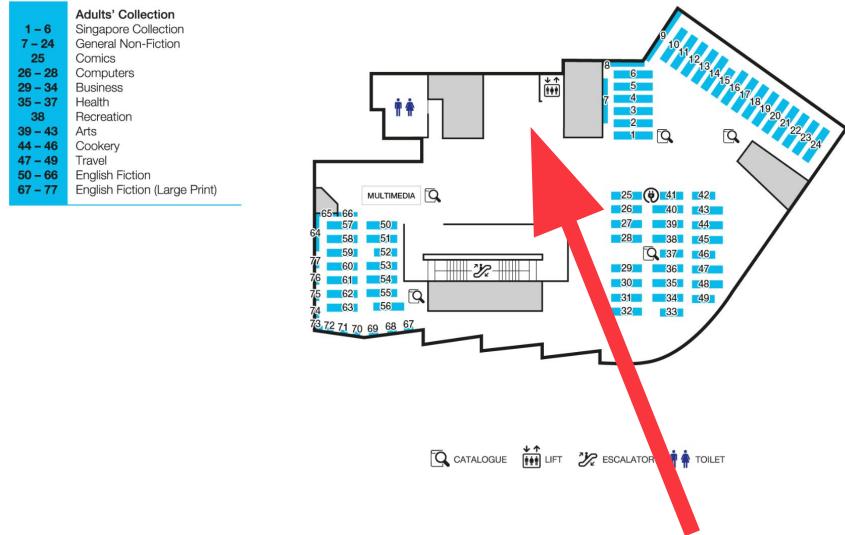
## Opening Hours

Wednesday -  
Sunday, 12 - 8PM

# MakelT at Woodlands

WOODLANDS REGIONAL LIBRARY • LEVEL 3

## MAP DIRECTORY



## Location

Woodlands  
Regional Library,  
3rd Floor

## Address

900 South  
Woodlands Drive  
#01-03. Singapore  
730900

## Closest MRT Station

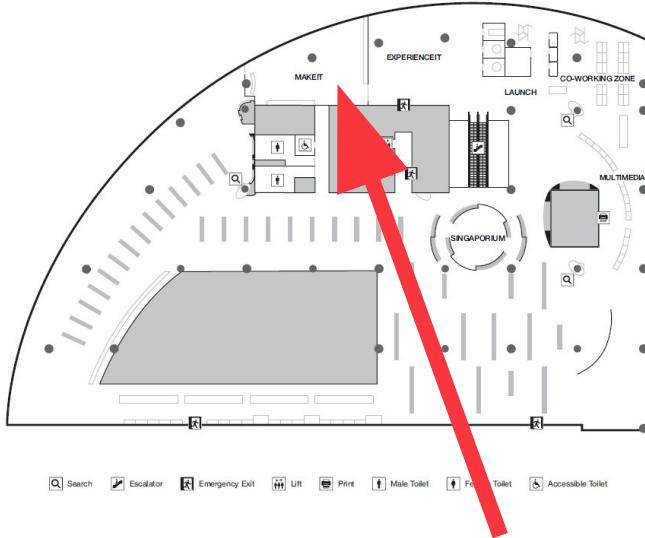
**NS9 TE2**  
**Woodlands**

## Opening Hours

Wednesday -  
Sunday, 12 - 8PM

# MakelT at Punggol

PUNGGOL REGIONAL LIBRARY • LEVEL 4



## Location

Punggol Regional Library,  
4th Floor

## Address

1 Punggol Drive  
One, #01-12,  
Singapore 828629

## Closest MRT Station

**NE17 PTC  
Punggol**

## Opening Hours

Wednesday -  
Sunday, 12 - 8PM

# MAKE TOGETHER WITH US

MakeIT

# Contribute your user creations with MakeIT at Libraries!

(Ongoing)

- Whether you've fabricated something physical like a 3D print or designed a digital creation, we would love to feature them at MakeIT!
- Simply leave your physical works and/or source files with our Maker Coaches at any of our makerspaces.



• **SHARE YOUR CREATIONS WITH MAKEIT!**  
**Submit us your works**

And have them possibly showcased at our exhibition at MakeIT!



**From Nov 2023**

Submissions can be contributed during MakeIT hours



**Any MakeITs**

Jurong Regional Library  
Punggol Regional Library  
Tampines Regional Library  
Woodlands Regional Library

Hey there, talented users of MakeIT at Libraries!

We've seen some amazing stuff being created here in our makerspaces, and we're creating a collection of items to display and share them with others!

Whether you've fabricated something physical like a 3D print or designed a digital creation, we would love to feature them at MakeIT!

## GETTING STARTED

- Contributor must be a registered user of MakeIT at Libraries. Not a member? Sign up with us in one of our Starter Sessions!
- Feel free to leave your physical works and/or source files with our Maker Coaches at any of our makerspaces.
- Your works will be part of MakeIT's open source library, which will be freely shared to other users for their own projects.
- For safety reasons, MakeIT at Libraries are recommended for ages 15 and above.



Scan the QR code to join MakeIT via our Starter Sessions!

**MakeIT**  
AT LIBRARIES  
[go.gov.sg/makeit](http://go.gov.sg/makeit)

 **National Library Board**  
Singapore



# THANK YOU!



Please follow the link above to provide feedback for this workshop. We'll use this information to continue to develop your learning journey within MakeIT.



# Applying Knowledge

## Udemy

Users with a valid myLibrary ID can access Udemy Business with their library account to access thousands of courses online for free.

Udemy has courses ranging from technology topics to traditional crafting, all available to enroll from:  
<https://www.udemy.com/>

### Quick Links

Primary School Students  
Secondary School Students  
Professionals  
Adults  
Seniors

By A-Z  
By Type  
By Subject  
For Teens  
For Children  
For Persons with Disabilities

Resources for Mobile Devices  
Ask a librarian

### Singapore Resources

Rare Books & Documents  
Singapore e-Encyclopaedia  
Singapore History  
Singapore Music  
Singapore & Malaya Newspapers  
Literary Works  
Photos & Images  
Web Archives Singapore

Home / By Type

### Browse By Type

eBooks eDatabases ejournals eLearning eMagazines eNewspapers

Showing 1 - 2 of 2

#### 1. Udemy Business

Udemy Business is an online learning platform that offers thousands of courses on key soft skills and technical topics such as Software Development, Leadership, Marketing, Sales, Programming, IT, and more.

For login instructions, refer to our [Step-by-Step Guide and FAQs](#).

Accessibility features for Udemy Business include independent volume control, headings and other styled content that are rendered as text instead of images, navigation tools, labelled form fields and headings for screen reader support and subtitles. For more information on Accessibility, [click here](#).

Available at all libraries and home, for NLB patrons' personal use only. You will be leaving the National Library Board's site if you choose to use the Services under Udemy Business. Please note that you must be at least 13 years of age to use the Services.

#### 2. Video Learning Portal (VLP)

Description of eResource.VLP is a one-stop site with video contents curated by our own NLB staffs. This is our very own YouTube+ portal where we can host videos for training and learning and share them securely within ourselves as well as our patrons.

Available at all libraries and from home.



Navigate here to get started:

<https://eresources.nlb.gov.sg/elearn>



EXTENSIONS I SECTION 3.1 | 25 MINUTES

# Applying Knowledge

## Udemy - Digital Cutting

Kimberly Smith features a number of courses that focus on digitally designing projects using the ScanNCut. The Canvas Workspace A to Z course is comprehensive and digs into what you can design for digital cutters such as the ScanNCut.

<https://www.udemy.com/course/canvas-workspace/>

Lifestyle • Arts &amp; Crafts • Brother ScanNCut

### Canvas Workspace A to Z

Create &amp; Customize Cutting Files for your Brother ScanNCut

4.6 ★★★★☆ (298 ratings) 1,352 students

Created by Kimberly Smith

Last updated 2/2022 • English • English [Auto]

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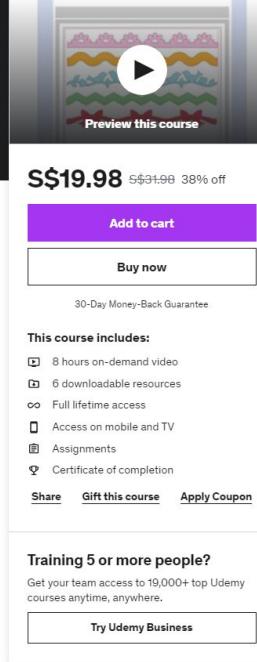
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▾ Working with Fonts	6 lectures • 1hr 12min
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