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bluetooth creator kit instructions

Thanks for ordering one of our kits!

To access the templates for A5, A4 and A3, please go to
http://bit.ly/1WcbiOl

You will need these so that you can design your graphics to fit to the hot spots.

Let's get started!

Create and laminate your graphic

1. Design your artwork to the supplied template making sure the touch hot spots are directly over the

black squares.

2. Have your printed graphic ready. Peel and fold back an inch or two of backing paper from the top of the conductive sticker (blank side).


3. Gently place your graphic over the conductive sticker and line it up before pressing down over the top sticky strip.

4. Remove the remaining backing paper and laminate on the rest of your graphic taking care not to get any trapped bubbles.

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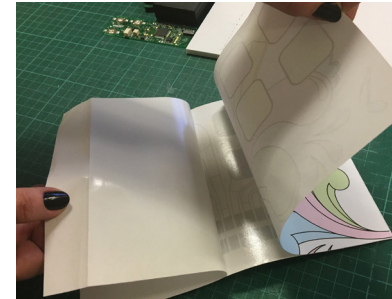
Assembly

1. Laminate the circuit side of the sticker to your chosen surface. Make sure you cut a hole in the substrate for the control module to attach & poke through before laminating. *The PrintedTouch conductive ink sticker is typically laminated onto a foamboard or Correx substrate.
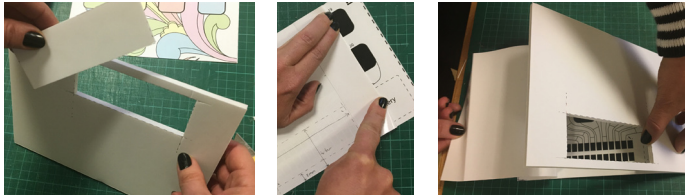
2. Use the corner and dot registration marks on the print to guide the placement of the control module onto the sticker.
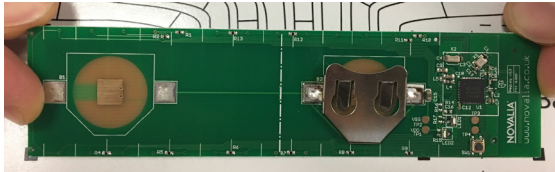
3. Lay your work on a hard, flat surface with the control module facing you. Press firmly along the length of the control module to ensure a good connection to the printed sticker.

Creating your app

To create your app, you will need to use a combination of Novalia's web portal and Novalia's **Builder** app.
The web portal allows you to set up an account, create your app name and upload assets.
The Novalia builder app allows you to further define your app by assigning functionality and assets to each touch point on your print.
* Video must be in the mp4 format, audio in mp3 or wav, and image must be png or gifs

Web portal

1. Point your browser towards www.printedtouch.com and create an account by entering your name, email address and choosing your password.

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2. First, you need to create an app name. Click **Create new app** on the home page. Add a name for the app and a version number. Select if the app is to have data capture or not and then click **Create App**.

3. Next, you need to create a group to hold your app assets. Click **Asset Groups** in the top menu bar.

4. Click on **Add Group** and continue to name your Asset group, choose access rights (recommended to select **Edit** which will allow you to make and save changes while you are still creating your app) and click **Create Asset Group** once finished.

5. To add assets to the group you just created, click on **Assets** in the top menu bar.

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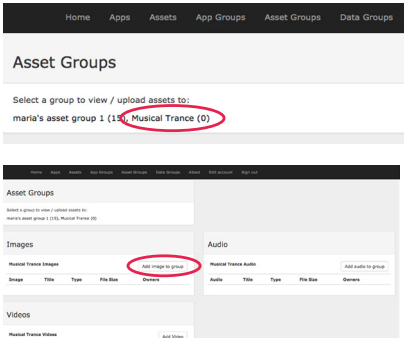
6. Select the asset group you wish to add to. You are now able to add images, videos and Audio to your asset group.

7. Once you click on **Add image to group**, a window will pop up where you can browse and select your files. Once selected, click on **Create Content Image**.
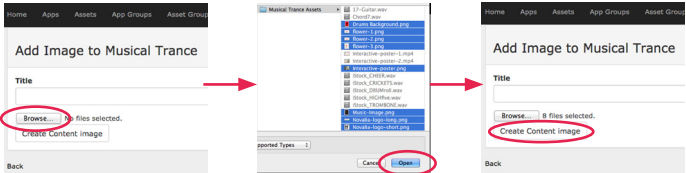
8. Follow the same steps to add Audio and Video assets.

Now that you have created an app name, and a group to hold all of your assets, it is time to move over to the **Builder** app.

Using 'Novalia Builder' app

1. Download and install the Novalia Builder from the Apple App Store.

2. Sign in and press **My apps**. The app name you created will be listed under **My Apps**. Select your app.

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Adding a background image

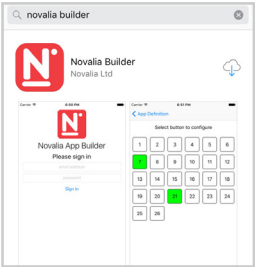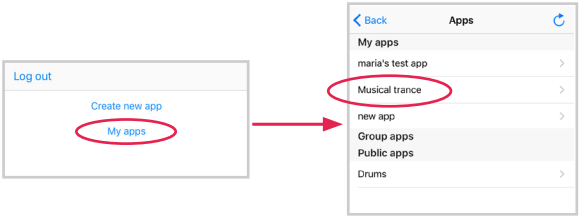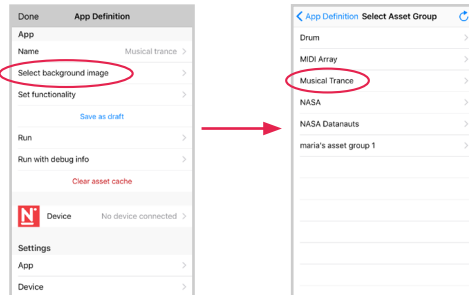1. Press *Select background image*. In the next window you can select the asset group you created.

2. Once you select your chosen background image, you will be taken back to the *app definition* screen automatically.

Connecting your print to the 'Builder' app

Make sure Bluetooth is on, and insert your coin cell battery into the green control module on your print.
*The battery goes in + side (with the writing on) facing you.

1. Press *Device* on the app screen. (See image to right)

2. Press the physical button on the PrintedTouch control module, its LED light will flash quickly. (See image to right)
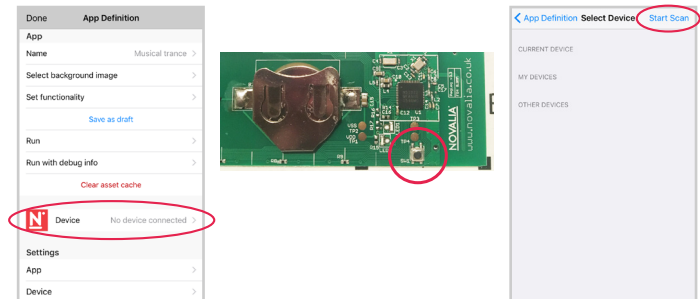
3. Press *Start Scan* in the app; any nearby and available devices will then be seen on the screen. Select the device you wish to connect to.

4. The connected device name will turn green to indicate it has been connected. Click on *App Definition* in the top left corner to go back to the main window. The connected device name will be visible next to *Device*.
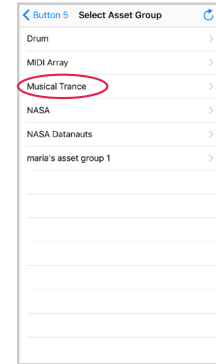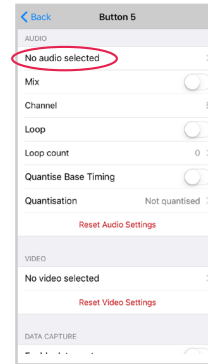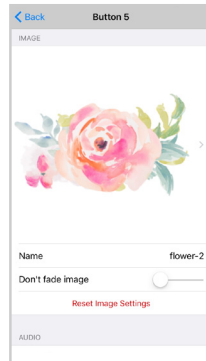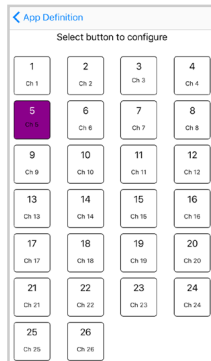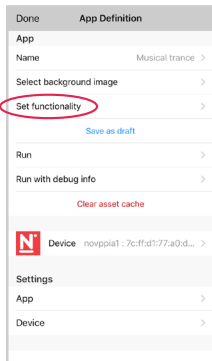
Assign functions and assets to touch points

Keep your print connected to the app.

1. Press *Set Functionality*. This takes you through to a screen which shows you a range of touch points.

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2. Touch a hot spot on your physical design. The corresponding button will highlight in purple on your app screen (see image below). Press this button to take you through to the button configuration page.

3. To assign an image to this touch point, press in the image area to take you to a list of asset groups. Select your asset group and choose an image. Your chosen image will now appear on the button configuration page (see image below).

5. To assign audio, press *No audio selected* - select your asset group and choose an audio file. (See images to right)

This same process applies with assigning video

*Please see end of instructions for a list of all available features and functions

Once you are done configuring that button, press **back** on the top left hand corner and move on to the next touch point you wish to configure.
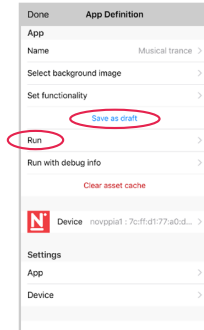
We would recommend repeating this process for a few buttons, and then trialling the app to get a feel for it, and then repeating and configuring until you're happy with your project.

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Test your app

1. Press *Save as draft* and then *Run*

2. Touch the hot spots on your print to play your project.

Adjust touch point sensitivity

1. In the *Settings* section, press *Device* - *Set button sensitivity*. A configuration screen will open that shows all the touch points in a live scan mode.

* Every time a Novalia PrintedTouch module is paired with a mobile device, all the touch points are scanned and base level is set. This can be reset by pressing *Recalibrate*.

2. Touch a hot spot on your print to view the sensitivity on the app screen.
If the bar fills up to orange, this indicates that the touch point is sensitive enough to trigger when touched (see image a).
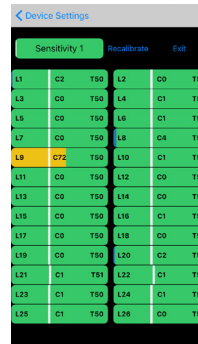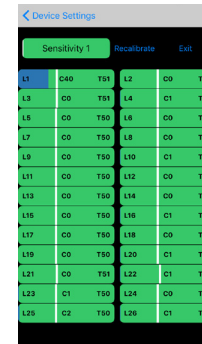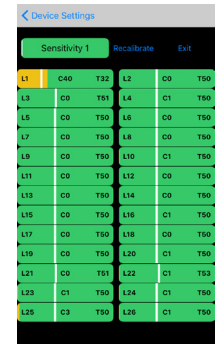
a.   b.   c.

If the bar fills up and remains blue, this indicates that the touch point is not sensitive enough to trigger when touched (see image b).

To rectify this, move the white slider down so that the bar fills up beyond this point. Touch the hot spot again on the print and it should turn orange to indicate that it is now sensitive enough to trigger when touched (see image c)

When you're happy with all your configurations, click *Save as Draft*. Your app will now appear under *My Apps* on the main screen.

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Features and functions on web portal

To view your apps select **Apps** or **My apps** from the menu. From here you can select an app you wish to modify.

Set app functionality
Select your app from **My Apps**. To set app functionality press **Set functionality**. It is easiest to set functionality through the **Builder** app and use this page to view all the app settings.

Creating groups
Groups are used to set access permissions. Assets, apps and data can all be associated with a group. Permissions can be set to use, edit or copy. **Use** will let anyone in that group use/run an app. **Edit** will allow you to modify an app and save it. **Copy** will allow you to open the app, use it and save with a new name.

To create a permission group select **App Groups**, **Asset Groups** or **Data Groups** from the menu at the top of the page, from the selected tab you can create a new group or modify an existing group by changing permissions or adding users.

Uploading assets
Refer to instructions.

Set data capture & view data
Click on **Data groups** to create a new group. To activate data capture, in the **Apps** tab, click **edit**. Tick the **Data capture** box and **Update app**. Scroll down the window to find your group under 'Other Data Groups' and click **Add**. **View Data** is located in the top **App Definition** box. You can only view data once your app has data in it, or at least you have set it to collect data.

Features and functions on Builder app

Set background image
Refer to instructions.

Set app functionality
Whether you are paired with a module or not you can change the functionality of a touch point by pressing the corresponding button on the app screen. After a touch point has been set it is shown as green.

Set image
Refer to instructions. Images can be either set to fade after an amount of time specified by the slider, or they will fade automatically at the end of the audio file (if audio is selected).

Set audio
Refer to instructions

Overplay - Enables the audio selected for that touch point to be heard whilst other audio is playing. If **overplay** is not selected then that audio file will stop any previously playing audio and will play on its own.

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Channel - By default each audio file is in its own channel which corresponds to the touch point number. If multiple touch points are set in the same channel then they will interrupt any audio file playing in that channel when they are pressed.
This can be used to isolate types of audio files.
For example, all drum loops can be in the same channel ensuring that only one plays at a time whilst other channeled sounds, such as vocals or synths remain mixed in the background unaffected.

Loop -The sound file will loop continuously.

Loop count - Sets how many times a 'looped' sound will repeat.

Quantise Base Timing - The selected sound file is used as a time reference for all other loops. Typically this sound would be one bar long and all other sounds would be a multiple or the same length as this reference sound file. Only one touch point sound can be set as the Quantise Base Timing.

Quantise Division - Set the depth of quantisation for a loop. Your sounds can be either 'not quantised', 1 bar, 1/2 bar, 1/4 bar, 1/8 bar or 1/16 bar. When this option is used, sounds will only start at the next quantised step after a touch.

Not quantised - Sound will play immediately when touched.

Set video
To set video press **No video selected** or the file name of preselected video. Choose your video asset folder and select the video.

Asset formats
Images, png, gif, animated gif; Audio, wav, mp3; Video, mp4

Data capture
On the main App Definition screen, under **Settings**, press **App** and turn on **Data Capture**.
Data can only be viewed on the web portal. Please refer to **Set data capture & view data** on page 8.

Reset
To reset image, audio or video selections press the red 'reset settings' under each of the sections.

Run the app
Press 'Run' on the app screen to play with your project.

Run with debug info
Use **Trial app with debug info** if you are unsure if the app is running or configured correctly. This will display the touch point number on the screen when a pad is touched on the PrintedTouch sticker.

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Clear asset cache

Press to remove all stored assets. Useful if your app displays the wrong image, or to ensure you only use the latest files. Please note that this will delete all your locally stored assets and they will need to be re downloaded from the server.

Device

Press to show device information such as device name, serial number, mac address and app name to run with this device.

Pairing a device

Refer to instructions.
Pressing pair device allows you to pair a PrintedTouch control module with your smart phone.

Set button sensitivity

Refer to instructions.
A configuration screen will open up that shows all the touch points in a live scan mode.
All changes to sensitivity are saved to the PrintedTouch control module and remain, even if the battery is removed.

Good luck with your creations!

We would love to see what you make and hear how you've got on. If you would like to share your projects, tutorials or thoughts with us, please give us a shout at info@novalia.co.uk.

Best Wishes,

Novalia Team

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NASA STARRY NIGHT

ASSEMBLY INSTRUCTIONS

# NASA STARRY NIGHT ASSEMBLY INSTRUCTIONS

Gather your ingredients- You'll need the following as a minimum:

- Starry Night printed conductive circuit (piano or spot design)
- Your substrate (we're using foam board)
- Printed Artwork (or you can design your own)
- Printed out cutter template
- A craft knife, ruler and cutting mat
- Spray adhesive
- A 2016 coin cell battery

Select the cutter template you would like to use: either the piano template or the Starry Night spot template.
You can use these instructions for both.

Make sure you have printed your template at 100% scale or 'Actual Size' otherwise it might be too small!
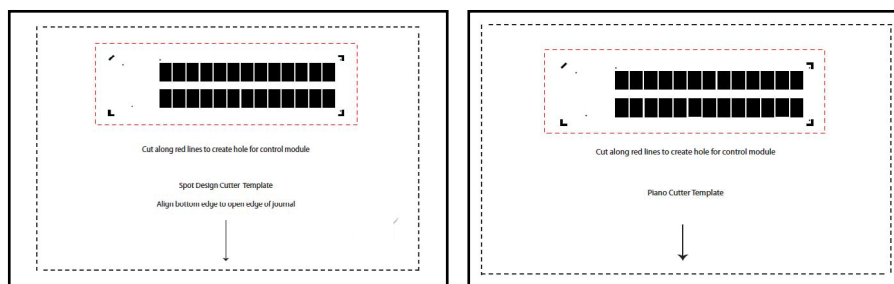
Cut out the inner rectangle along the red dotted lines, and the outer rectangle along the black dotted lines
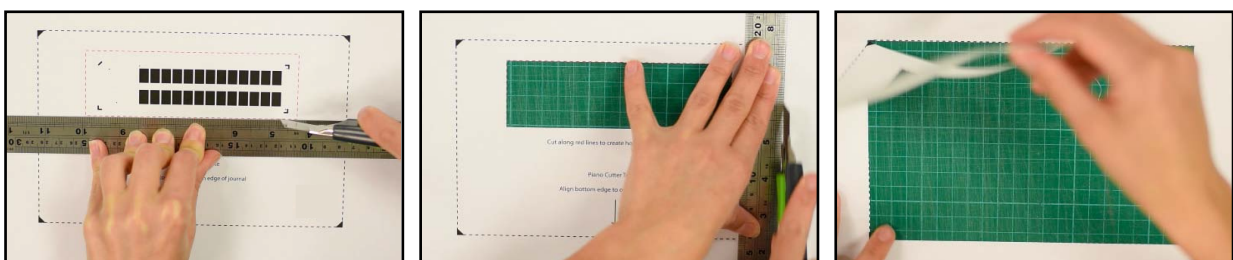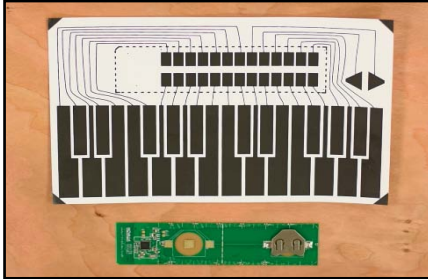

Place your cutter template on your substrate, and trace around it with a pencil.

Cut out carefully using a ruler, scalpel and cutting mat.
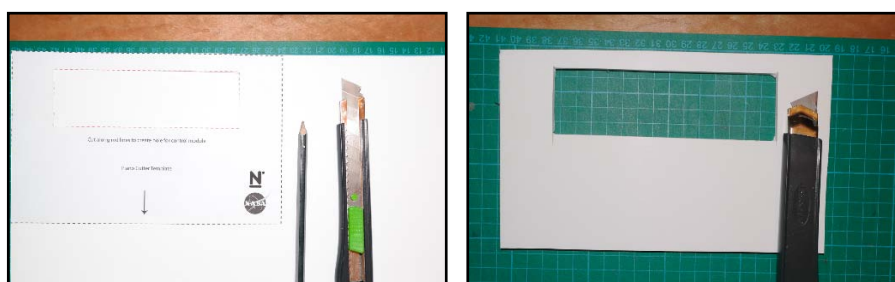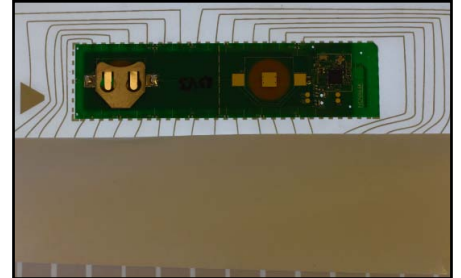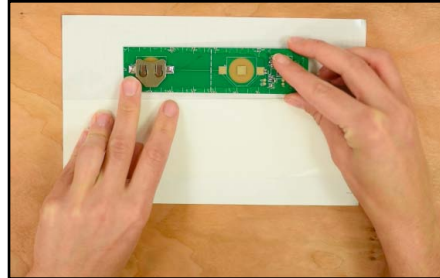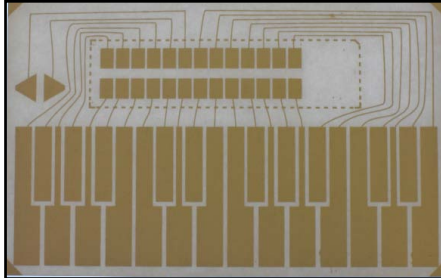
NASA STARRY NIGHT ASSEMBLY INSTRUCTIONS

Take your conductive sticker and midi module.
Gently peel the liner paper from the back of the conductive sticker.
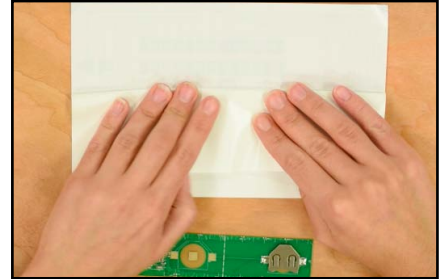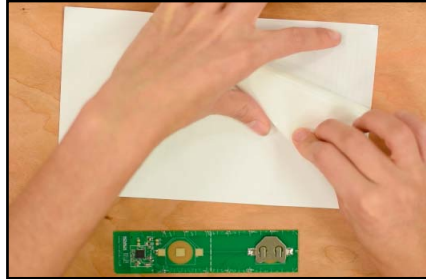
Place the midi module onto the sticky side of the print.
You should be able to see some black dotted lines, it needs to sit EXACTLY within these, the right way around, with the diagonal corner in the right place.

If you can't see the dotted lines well, try using your phone, a window or your compter screen as a lightbox!
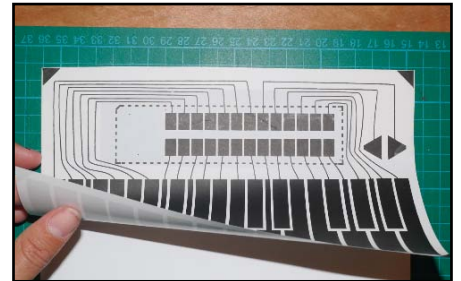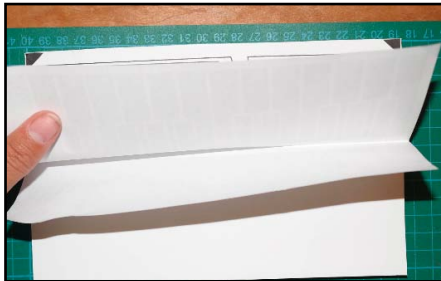

Now you want to press the midi module down really firmly, all the way along, so it makes good contact with the sticker.
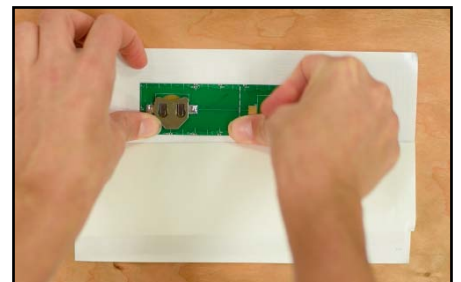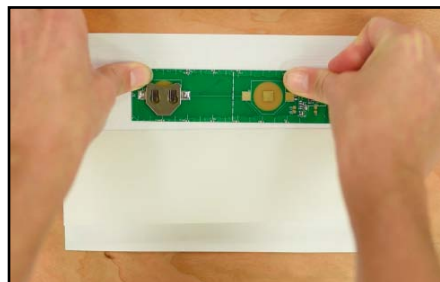
Don't be shy!

NASA STARRY NIGHT ASSEMBLY INSTRUCTIONS

Take your substrate, sticker and module, and peel off the rest of the liner paper. Carefully position this over your substrate so that the midi module falls into place in the hole you have cut out.
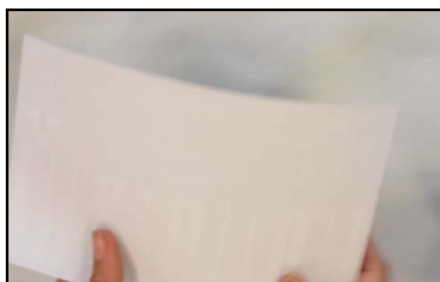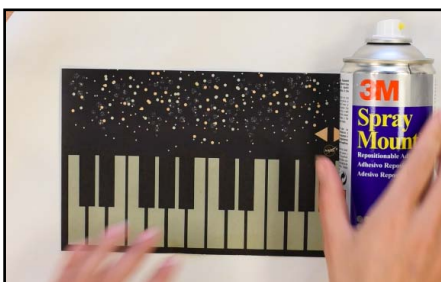

Smooth it down with both hands.

Now it's time to stick on your artwork. You can either create your own using the templates, or print out ours. Make sure you print it out actual size!

Take your ruler and a craft knife, and cut down the crop mark lines.

Use spraymount to make the back of your artwork sticky.
Don't use liquid glue or a glue-stick, it will change the sensitivity and might not work properly.

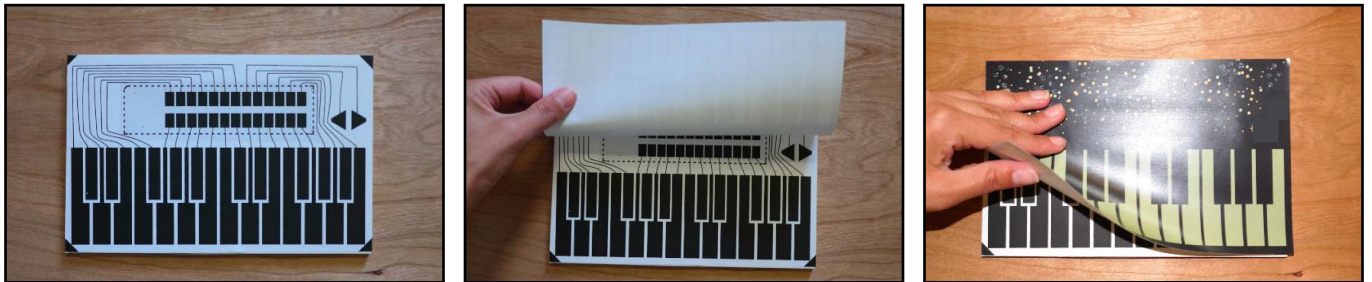It's best to use spraymount in a well ventilated area.

NASA STARRY NIGHT ASSEMBLY INSTRUCTIONS

Line up your artwork and gently stick it over the conductive print, making sure it's in the right place.

Smooth it down with your hands to make sure there are no wrinkles or air gaps.

Now it's time to connect it to the Novalia Builder App to start playing with your Spacey Sounds. See our separate 'Starry Night App Connection' video for instructions.
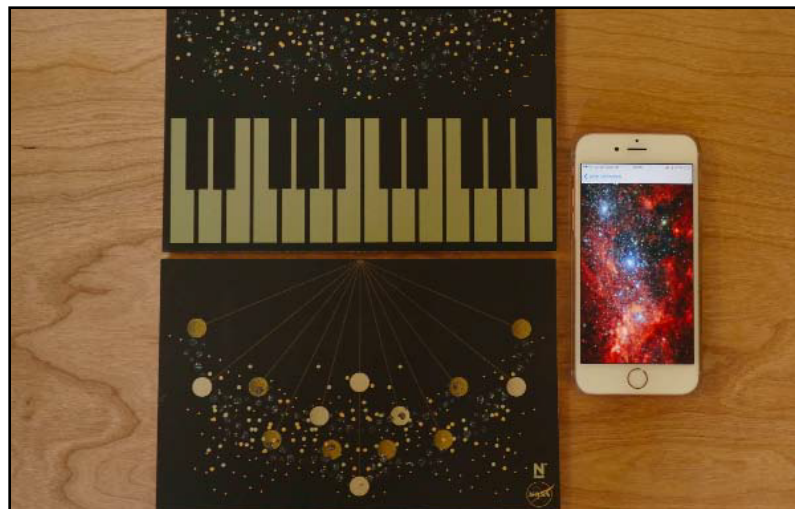
Happy playing!

Visit the Nasa Datanauts website for more

www.nasa.gov

Made in collaboration with

www.novalia.co.uk