

Polaroid



Play+ 3D Pen User Guide

3D-FP-PL-2005-00

www.polaroid3d.com

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INTRODUCTION

The following User Guide will provide you with all of the information you will need to know to get started with your Polaroid Play+ 3D Pen.

It will guide you through how to use your pen, starting from getting it out of the box and setting it up, through to using all of the amazing features and techniques to get you creating awesome 3D models to impress your friends and family with!

Within this User Guide you will find information on all the different filament materials and colours that are available for use with your Polaroid Play+ 3D Pen, including Premium PLA, Deluxe Silk, Glow-in-the-Dark, Multi-Colour and P-Wood.

The Polaroid 3D team hope that you have many happy hours drawing and creating with your Polaroid Play+ 3D Pen. If you have any questions or queries regarding your pen, please don't hesitate to contact us via polaroid3d.com/contact where a member of the team will be happy to assist you.



BOX CONTENTS

- 1 x Polaroid Play+ 3D Pen
- 1 x 3D Pen Holder
- 1 x 1.5m / 4.9ft USB cable
(USB Power Adapter not included)
- 3 x 15g (5m) / 0.5oz (16.4ft)
PLA plastic filament packs
(assorted colours)
- 1 x Quick Start Guide



OPERATING INSTRUCTIONS



PRODUCT FEATURES

- Create your own freehand 3D models, including drawing into the air or tracing a template and using the pen to assemble the parts together!
- Designed for both right and left handed users with the Start button positioned on the top panel of the pen.
- 3 optimised speed settings (Rapid, Normal, Fine).
- Powered via a USB C connection, it can be used with the most up-to-date mobile technology charging cables.
- Compatible with ALL Polaroid PLA-based Universal Filaments; PLA, Deluxe Silk, Multi-Colour, Glow-in-the-Dark and even our P-Wood.
- Automatic retraction of the filament and power-off after 8 minutes of inactivity, for added safety.
- Filament removal by pressing and holding the power button for 2 seconds.
- Manual or Automatic Extrusion.
- 3 filament reels included in the box, giving you everything you need to get started.



SAFETY INSTRUCTIONS



WARNING

WARNING - BURN HAZARD: Parts of this product get very hot during use (approx. 180 - 200°C / 356 - 392°F). **DO NOT** touch the tip of the pen, the surrounding area (where you see this sign ) , or the melted plastic as it could cause a **BURN**.

Before storage always allow the product to completely cool after use.

This product **IS NOT A TOY**.

This product is suitable for ages 14+ unless under adult supervision.

Please read this Quick Start Guide carefully before use.

If switched on, always put the pen back in its holder when not in use.

TECHNICAL SPECIFICATIONS

Play+ 3D Pen	
Model No.	3D-FP-PL-2005-00
Power Requirement	A 5.0 Volt DC, 2 Amp (minimum) power adapter (5.0VDC $\overline{\text{---}}$ 2.0A) MUST be used. IMPORTANT: Using an incorrect power adapter will result in the Pen not working correctly.
Pen Size	168 (l) x 24 (w) x 33 (d) mm 6.61 (l) x 0.94 (w) x 1.29 (d) inch
Filament	PLA, Deluxe Silk, Multi-Colour, Glow-in-the-Dark, P-Wood.
USB Cable	Type-C to USB-A 1.5m / 4.9ft
Guarantee	12 Month Manufacturer's Guarantee (this may differ by state/country according to minimum statutory requirements).
Safety	Auto Turn-off after 8 mins, for added safety.
3 Speed Settings	Rapid, Normal, Fine

HOW TO USE

1 Use the USB cable provided to connect to a 5.0 Volt DC, 2 Amp power adapter (5.0VDC  2.0A).

2 Press the Power Button () . The light will flash red to indicate that the Polaroid Play+ 3D Pen is heating up.

3 When the light turns blue it means the Pen is ready for use. Insert one end of your PLA material into the loading hole at the top of the pen (). Please ensure that the end of the filament is flat across the end (cut carefully with scissors if not) before inserting. Insert the filament gently until it stops. Press and hold the Start button () and you will feel the filament being gently guided into the Pen. Please keep this button pressed until you see filament appear from the end of the nozzle. **NOTE** this may take a few minutes. **DO NOT TOUCH** any part of the nozzle at this point as it will be **VERY HOT**.

4 Click and release the Start button () for continuous printing (the pen will start extruding automatically). Whilst in this mode pressing the Start button () again will pause printing. For manual printing press and hold the Start button (); releasing your finger in this mode will immediately stop the printing.

5 To speed up or slow down the extrusion of the filament press the () button. **NOTE:** there are 3 speed settings.

6 To retract the current filament material (either to change colour or to remove completely), press and hold the Power button (). You will hear and see the filament being removed from the Pen. Please note that full retraction may take a few minutes. **NOTE:** The 3D pen will automatically retract if the Pen is not being used for approximately 8 minutes.

NOTE: The Polaroid Play+ 3D pen should only be used with original Polaroid 1.75 mm PLA filament. **Use of third party filament could cause damage to your pen. This may invalidate your warranty.**

HOW TO CREATE YOUR MODELS

Whether you are an expert or a first-time user, there is something for everyone to make with the **NEW** Polaroid Play+ 3D Pen. Follow the tips below to create 3D models that will wow family, friends and colleagues!

Beginner

Use a template to trace around and then simply fill in the various parts of your model, as you would if using a colouring pen. You can then use the 3D pen itself to join these pieces together, creating a 3D model.



Intermediate

Once you have mastered the tracing technique, you can start to create more complex models using real objects as your template instead! Cups, hats and shoes are good examples but it's important to ensure they can withstand the heat of the filament first.



Expert

The most advanced way to use the pen is to create models from scratch. This can be achieved by drawing up into the air, by layering filament to build a model or by creating a scaffold to draw over!



USING YOUR DIFFERENT SPEED SETTINGS

The Polaroid Play+ 3D Pen has three optimised speed settings to provide you with the ability to tailor the flow of the material through the pen depending on your desired output.

Rapid ● ● ●

Minimises the time it takes to cover an area when you are creating larger models, as well as providing you with an increased flow rate. To use the Rapid speed setting, press the speed control button until three LED speed indicator lights are showing.

Normal ● ●

Provides a comfortable level of output ensuring ease-of-use from the outset, as well as a steady continuity, minimising the need for regular starting and stopping. To use the Normal speed setting, press the speed control button until two LED speed indicator lights are showing.

Fine ●

Optimised for creating intricate designs and providing the ability to free draw vertically. To use the Fine speed setting, press the speed control button until one LED speed indicator light is showing.

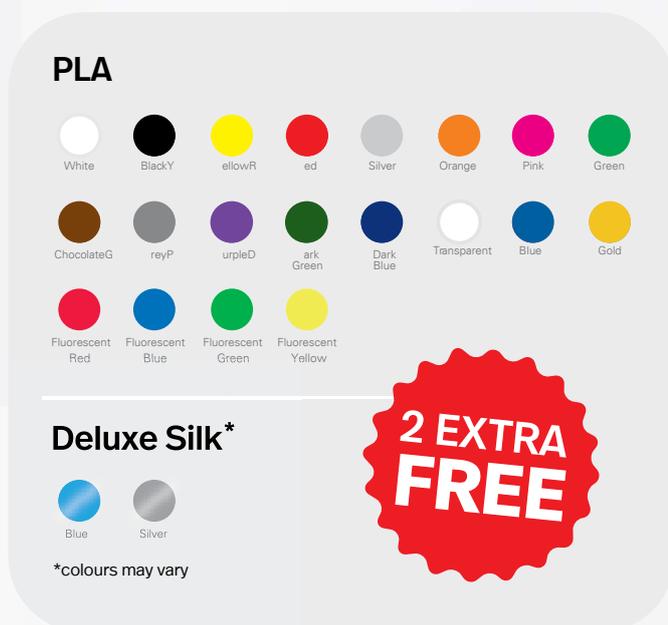


3D PEN FILAMENT

The Polaroid Play+ 3D Pen works with the new 3D pen filaments. The box contains 22 vibrantly coloured PLA filament reels including 2 reels of the new Deluxe Silk filament, completely free! The fantastic colour spectrum offers the opportunity to create and build models in many different colours with two unique finishes.

Product Features

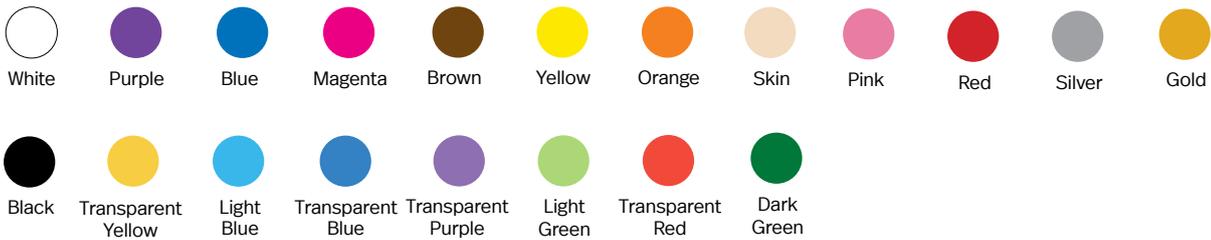
- Each box contains 20 x 15g (5m) PLA plastic filament packs in 20 fantastic colours, plus 2 extra FREE Deluxe Silk filaments.
- Each 15g pack lasts approximately half an hour of continuous drawing.
- PLA plastic is an environmentally friendly bio-compostable plastic made from corn starch.
- Each 15g pack contains standard 1.75mm diameter material.
- Box includes fantastic fluorescent colours for creating models that glow under UV light.
- The Polaroid 3D filaments can be used with ANY suitable 3D Pen that uses PLA filament.



3D FILAMENT

The Polaroid Play+ 3D Pen is also compatible with all of the PLA based Universal Polaroid filaments, including the 1kg Polaroid Premium PLA filament (available in 20 colours), the 1kg Polaroid Glow-in-the-Dark filament, the 500g Polaroid Multi-Colour filament, and the 250g Polaroid Deluxe Silk filament (available in 7 colours).

Premium PLA - 1Kg



Multi-Colour - 500g



Glow-in-the-Dark - 1Kg



Deluxe Silk - 250g

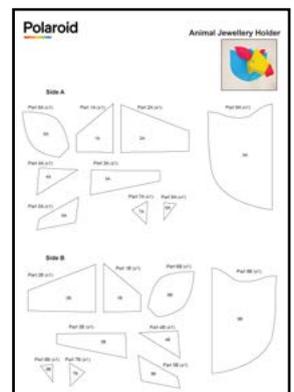
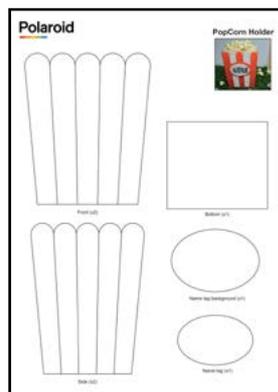
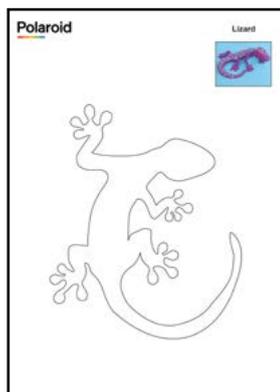
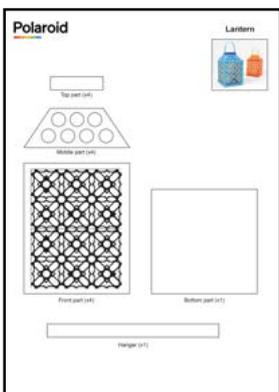


STENCIL LIBRARY



Download and print from our selection of templates and start creating your own amazing 3D models!

Templates can be found on our website: polaroid3d.com/stencils



MANUFACTURER'S GUARANTEE

The manufacturer guarantees this pen against any defects in both material and workmanship for a period of 12 months (unless minimum statutory requirements state otherwise) from the date of purchase. It is based on fair use with regular maintenance and excludes normal wear and tear.

Should any defect(s) be discovered, please first visit our online troubleshooting support page at polaroid3d.com/support. However, if a problem occurs during the 12-month period that cannot be rectified remotely or on site by the manufacturer's technical team then you may be requested to return the pen. The following information outlines the process you must follow in order to return your pen for repair.

Your serial number and proof of purchase will be required in order to process your claim.

Please ensure you include a copy of your sales receipt when you return the product.

A Simple Return Process

1. Contact the manufacturer's customer service team by visiting polaroid3d.com/contact. If a return is required, you will be provided with a Returns Transfer Number (RTN) or advised to return to point of purchase.
2. Clearly write the RTN on the outside of the box or packaging, next to the shipping label (where applicable). The manufacturer will not be responsible for non-traceable packages or packages sent without a valid RTN on the outside of the packaging.
3. Once your item arrives, the technical team will review and either repair or replace the item.

Please note: If upon return and inspection your product is deemed not faulty or to have been damaged due to misuse or negligence you may be liable for any associated shipping and handling costs.

All implied guarantees, including any implied guarantee of fitness for any particular purpose, are limited in duration to 12 months from the date of original purchase. In no event will the manufacturer be responsible for consequential damages resulting from the use of this product.

The above limitation or exclusion may not apply to you to the extent that applicable law may not allow the limitation or exclusion of liability for incidental or consequential damages.

Using third party products with this pen without the express permission of the manufacturer may invalidate this guarantee in the event of damage subsequently being caused to the pen.

Tampering with the pen in any way may invalidate the guarantee. Please contact the manufacturer's technical team if you have any enquiries.

AFTER SALES SUPPORT

The manufacturer has a dedicated team of specialists that are available to help with any issue or question you may have regarding your Polaroid Play+ 3D Pen. Please contact our team via the contact form at polaroid3d.com/contact.

MAINTENANCE

Your Polaroid Play+ 3D pen must be kept clean to obtain the best output from the pen.

CERTIFICATIONS AND COMPLIANCE

The Polaroid Play+ 3D Pen is compliant under the following applicable EU certifications:

- **FCC:** The **FCC Declaration of Conformity** or the **FCC mark** is a certification mark employed on electronic products manufactured or sold in the United States which certifies that the electromagnetic interference from the product is under limits approved by the Federal Communications Commission.
- **Proposition 65:** (Safe Drinking Water and Toxic Enforcement Act of 1986) requires products to be clearly marked with warning signs if they include any chemicals which have been deemed to potentially cause cancer, birth defects or other reproductive harm. This product has been tested and does not contain any chemicals which require this warning mark.
- **CE Marking:** Following all of the above required legislation and certification enables each of the Polaroid Play+ 3D Pens to proudly carry the CE Mark which confirms that they have been approved under each of these Directives.
- **UKCA Marking:** The UKCA (UK Conformity Assessed) marking is a new UK product marking that is used for goods being placed on the market in Great Britain (England, Wales and Scotland). It covers most goods which previously required the CE marking.
- **RoHS Directive 2015/863/EU:** This is the Restriction of Hazardous Substances Directive. Its purpose is to restrict the use of hazardous materials in the manufacture of various types of electronic and electrical equipment. Each individual component of the equipment has been tested in order to ensure that the Polaroid Play+ 3D Pens are approved under this Directive.
- **WEEE Directive:** The Polaroid 3D Pen team is WEEE compliant in all applicable EU countries in which the product is supplied. This ensures that responsibilities are fulfilled in regards to the electronic waste that is generated through the sale of the Polaroid Play+ 3D pens and consumables within this territory.
- **Green Dot Packaging Waste Directive - 94/62/EC:** This directive ensures that manufacturers whose products use packaging are responsible for either recovering their own packaging waste, or contributing to the cost of recovery and recycling of such waste. The Polaroid 3D team is registered and compliant against this directive across the applicable European countries.



RoHS

**UK
CA**

CE

FC



FAQs AND TROUBLESHOOTING

Customer feedback on our Play+ 3D Pen has been extremely positive. If however you are experiencing any challenges, please take a look at our FAQs and Troubleshooting questions below or check our tutorial videos.

What is the power requirement for the pen?

The pen can be powered either by plugging the USB C cable into a suitable USB power adapter which then plugs directly into the wall or by using an adequate power bank. Both of these must be a 5.0VDC – 2.0A source.

Do I need to keep the Start button pressed when loading a new filament?

No, you do not need to keep the Start button pressed when loading a new filament.

To load new filament, firstly make sure the pen is turned on and the LED light is blue. Then place the filament into the loading hole at the top of the pen (the one next to where the power cable is inserted). Make sure the end of the filament is flat across the end before inserting (cut carefully with scissors if not). Insert the filament gently until it stops. Then simply press the Start button once and you will feel the filament being gently guided into the pen automatically. Wait for the filament to be pulled all the way through the pen until you see it appear from the end of the nozzle. You can speed up this process by pressing the 'Speed Control' button, until 3 green LED lights are showing indicating the extrusion speed is set to rapid.

The light on my pen doesn't light up at all/I have no power to my pen

Firstly, please double check that you are using an adequate power supply. This must be a 5.0VDC – 2.0A source. If your supply is less than this then insufficient power is being pulled into the pen which could cause the pen to not power up correctly.

If you have confirmed that you are using the correct power supply and the pen is still not working, please try using an alternative power source (power bank, USB power adapter etc.) to ensure that this isn't the cause of the challenge.

If the pen still does not work then please double check that the cable is inserted into the top of the pen correctly and if so, that by moving it around inside the fitting in the top of the pen you still do not see the light come on at all.

If none of the above resolves the situation then please contact the Polaroid 3D support team and they will be able to help find a solution for you.

My pen doesn't heat up/the light doesn't turn from red to blue

Firstly please double check that you are using an adequate power supply. This must be a 5.0VDC – 2.0A source. If your supply is less than this then insufficient power is being pulled into then pen which could cause the pen to not heat up to the correct temperature meaning the light will not turn to blue.

If you have confirmed that you are using the correct power supply and the pen is still not heating up, please contact the Polaroid 3D support team and they will be able to help find a solution for you.

FAQs AND TROUBLESHOOTING

My pen is not extruding

Firstly, please check that you have adequate power to your pen (5.0VDC – 2.0A) and that your pen is heated to the correct temperature ready for use (the LED light is blue).

Next, make sure that your filament is inserted correctly into the pen. If you already have filament loaded please unload completely from the pen (by pressing and holding the Power button for a couple of seconds and waiting for the filament to be completely retracted). Once removed, please ensure that the end of the filament is flat across the end (cut carefully with scissors if not) before re-inserting into the Loading Point in the top of the pen (next to where the power cable is inserted).

Please re-load the filament by pressing the Start button once and you will feel the filament being gently guided into the pen automatically (you can increase the speed at which the filament is pulled through by pressing the 'Speed Control' button, until 3 green LED lights are showing indicating the extrusion speed is set to rapid). This time, gently apply a small amount of pressure by pushing the filament slightly as it feeds into the top of the pen. Wait for the filament to be pulled all the way through the pen and this time you should see it appear through the end of the nozzle and the pen will be ready to use.

If however you are still not seeing anything extruded, please contact the Polaroid 3D support team and they will be able to help find a solution for you.

I am using a power bank to power my pen but its seems to be slowing down

If you are seeing your pen slow down when using a power bank, this is generally due to the power bank itself running out of charge. This means that there is insufficient power to run the pen as it needs to and this results in a slowing down of the extrusion. Please check your power bank is fully charged and try using the pen again.

If your power bank is fully charged and you are still having problems with the pen slowing down, please try an alternative power source to rule out any other technical challenges with the power bank itself. We suggest using a USB power adapter and plugging the pen straight into a socket in the wall.

If you have tried both of the above and the pen is still slowing down, please contact the Polaroid 3D support team and they will be able to help find a solution for you.

I have hardened filament on the nozzle of my pen, how do I remove it?

Please turn on the pen and allow it to heat up. Even before the pen reaches its optimum temperature (when the light is blue) the plastic around the nozzle will have started to soften. Please take a pair of tweezers and gently remove the softened plastic. DO NOT try to remove this by hand as the nozzle will be starting to get hot. To prevent this build-up from happening in the future please always remove any residual plastic from the nozzle whilst the pen is still warm.

FAQs AND TROUBLESHOOTING

When I use certain colours the filament seems to be too soft and sometimes even bubbles

Different colours of filament melt at slightly different temperatures and therefore for those with a slightly lower melting temperature you may find that the extruded filament is softer than you have previously seen. If this happens, try slowing down your extrusion speed slightly as this means the melting temperature is slightly lower and therefore the filament shouldn't be as soft when it is extruded. This should also help to prevent any bubbling in the filament.

It is important to always use Polaroid 3D Pen Filament with your Polaroid Play+ 3D Pen as these have been specifically designed to work in conjunction with each other which means challenges such as this are minimised.

I can only get the pen to work by pressing and holding the Start button, can I not just click it once to start?

To start extruding with the pen you can either, press and hold the Start button or you can simply click-and-release (rapidly) the Start button. Please refer to our instructional video for more information on this.

If you want automatic extrusion then simply 'click' the Start button once. PLEASE NOTE that this must be a 'click' (a quick 'click-and-release' of the button) and not a 'press' of the button as pressing it will start the Manual extrusion process, and therefore when you release the button the extrusion will stop.

Once the button has been clicked, the Automatic extrusion will continue until the button is clicked again which will then stop the process.

Pressing and holding the Start button will start manual extrusion; the pen will keep extruding until you release your finger at which point it will automatically stop.

Loading new filament into my pen takes a long time

If you are trying to load or unload filament and this is taking some time then you can speed up this process by pressing the 'Speed Control' button, until 3 green LED lights are showing indicating the extrusion speed is set to rapid.

The process of changing a colour is as follows. Firstly, to change the colour of the filament you are using, you need to unload any filament that is already in the pen. To do this, press and hold the Power button for a couple of seconds. You will see the LED light on the front start to flash from red to blue and you will hear the motor start to unload the filament. You will also see and be able to feel the filament moving as it is retracted from the pen. If you gently hold the end of the filament you will feel when it has come loose from the pen and it can then be removed completely.

To load new filament, firstly make sure the pen is turned on and the LED light is blue. Then place the filament into the loading hole at the top of the pen (the one next to where the power cable is inserted). Make sure the end of the filament is flat across the end before inserting (cut carefully with scissors if not). Insert the filament gently until it stops. Then simply press the Start button once and you will feel the filament being gently guided into the pen. This process will then continue automatically. Wait for

FAQs AND TROUBLESHOOTING

the filament to be pulled all the way through the pen until you see it appear from the end of the nozzle. You can speed up this process by pressing the 'Speed Control' button, until 3 green LED lights are showing indicating the extrusion speed is set to rapid.

My pen keeps turning off/stopping

Firstly please double check that you are using an adequate power supply. This must be a 5.0VDC – 2.0A source. If your supply is less than this then insufficient power is being pulled into the pen which could cause this intermittent stopping.

If you have confirmed that you are using the correct power supply and the cable is inserted correctly and you are still seeing this problem then it could relate to the power cable itself. If so, please contact the Polaroid 3D support team and they will be able to help find a solution for you.

My pen is extruding slowly, how do I speed it up?

Firstly please double check that you are using an adequate power supply. This must be a 5.0VDC – 2.0A source. If your supply is less than this then insufficient power is being pulled into the pen which could cause the pen to not heat up to the correct temperature and the light will not turn to blue.

If you have confirmed that you are using the correct power supply and the pen is still not heating up, please contact the Polaroid 3D support team and they will be able to help find a solution for you.

The speed of extrusion seems to change even though I am not changing the speed settings

Firstly please double check that you are using an adequate power supply. This must be a 5.0VDC – 2.0A source. If your supply is less than this then insufficient power is being pulled into the pen which could cause this unwanted speed change.

If you are using a power bank, please check that there is still sufficient charge to be able to power the pen. If unsure, please re-charge and then try using your pen again.

If you have tried both of the above and the speed is still changing, please contact the Polaroid 3D support team and they will be able to help find a solution for you.

I have some stringy filament when I move my pen away from the model I am creating

When making a model, please ensure that you press or release (depending on if you are using Auto or Manual extrusion mode) the Start button in order to stop extrusion before moving from one area of your model to the next. If you pull the pen away before it has completely stopped extruding then this could leave some stringy residual filament.

You may also find that this happens more with certain colours of filament than others. This is because different colours melt at slightly different temperatures and therefore for those with a slightly lower

FAQs AND TROUBLESHOOTING

melting temperature you may get small amounts of filament still being extruded from the nozzle momentarily after the Start button has been pressed/released (this being the residual filament in the nozzle that had already been melted). If this happens, please either gently remove the unwanted stringy filament whilst still warm (and therefore soft) by pulling it swiftly away from the model, or wait until the filament has hardened and then remove carefully using a pair of scissors.

You can also try slowing down your extrusion speed slightly as this means the melting temperature is slightly lower, which in turn may mean you see less of the 'stringiness'.

It is important to always use Polaroid 3D Pen Filament with your Polaroid Play+ 3D Pen as these have been specifically designed to work in conjunction with each other which means challenges such as this are minimised.

I sometimes see a small amount of smoke from the nozzle of the pen when it is heated up

If you are seeing a small amount of smoke when you turn on your pen, this will be because there is a small amount of old, residual, solid filament in-or-around the nozzle area from the last time it was used. After a few seconds of extrusion once the pen has been turned back on this smoke should subside as the old filament has been re-melted and therefore extruded through, and away, from the nozzle along with the new filament.

To prevent this from happening in the future please always remove any residual plastic from the nozzle whilst the pen is still warm.

My reel of filament is broken into small pieces

All due care and attention has been made to ensure that the filament reaches you in optimum condition, however, on very rare occasions you may find that there are some breaks in the filament reel that you receive.

If this happens and the lengths of the filament are still at least double the length of the pen then these can be used as you would do normally. If the pieces are smaller than this, please send a photograph of the reel as it was received inside its packaging to the Polaroid 3D support team at polaroid3d.com/contact and they will be able to help find a solution for you.

For any points not answered in this User Guide, or on our website, please contact our team at polaroid3d.com/contact detailing your enquiry and one of the team will be in touch.

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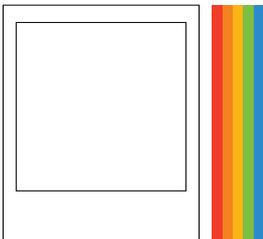


Have questions? We've got answers.

Visit us at polaroid3d.com/support

Contact

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Europeansales@polaroid3d.com
www.polaroid3d.com



Instantly recognizable. Instantly reassuring. The Polaroid Classic Border and Polaroid Color Spectrum logos let you know you've purchased a product that exemplifies the best qualities of our brand and that contribute to our rich heritage of quality and innovation.



polaroid3d.com/3Dpens

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