

#### Welcome

Thank you for purchasing the Robox® micro-manufacturing platform and welcome to the future of custom manufacturing!

Robox® provides you with the capability to produce three-dimensional models in a variety of thermoplastic materials and with our HeadLock™ easy replacement system, you can begin to explore a whole range of personal manufacturing possibilities.

#### Learn More

Refer to the following sources for additional information and for product and software updates.

#### Ouick Start Guide

You will find this in the product packaging along with this safety guide. It contains a brief setup guide for Robox® to get you printing as easily as possible and also includes a link to a more comprehensive online version.

#### User Guide

This is supplied in pdf format and you will find it on the USB drive included with the product.

### • Official Robox® website - www.cel-robox.com

The Robox® website provides up to date information on available hardware and software products compatible with the system. It also contains contact details, warranty information and support.

#### • Optional Documentation

Your product packaging may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not necessarily part of the standard package.

## Important Safety Information

The following precautions should be made to ensure the safety of yourself and your environment and to protect the product from damage. Please follow these precautions at all times:

### **Electrical Safety**

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system or performing any maintenance.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Use the power supply voltage specified on the rating label. Avoid overloading an electrical outlet with multiple devices.
- Use only the power cable supplied with the product. Do not damage, cut or repair the power cable. A damaged power cable carries a risk of fire and electric shock. Replace a damaged power cable with a manufacturer approved power cable.
- Please do not disassemble the product, there are no user serviceable parts inside. If you experience any problems, please contact your local Service Representative or CEL Technology. See the 'Contact Us' section of the Warranty Card.
- Ensure the product is well-grounded. Failure to ground the product may result in electrical shock, fire and susceptibility to electromagnetic interference.

#### **Operation Safety**

- Before using the product, ensure all cables are correctly connected to a power supply that matches the rating label and the power cables are not damaged. If you detect any damage, contact your retailer immediately.
- Do not place the product in any area where it may become wet or damp and avoid dusty, humid and high temperature environments which could negatively affect product performance. The printer is designed to work properly at an ambient temperature of between 15°C and 25°C and humidity of between 20% and 50%; Operating outside these limits may result in low quality models.
- Place the product on a stable surface away from flammable substances.
- Do not allow metal or liquids to touch the internal parts of the product. Doing so may cause damage, fire, electric shock or other serious hazards.
- Always use the product in a well-ventilated area.

- Do not use ABS plastic or its printed parts near any kind of heat source flames, fireworks, candles, incense, light bulbs etc. ABS will catch fire and burn a thick black toxic smoke.
- Power off the product and disconnect the power cable from the power outlet in any of the following cases:
  - If there is any smoke coming from the product.
  - If the product is making an unusual noise not heard during normal operation.
  - A piece of metal or a liquid touches the internal parts of the product.
  - During an electrical (thunder/lightning) storm
  - During a power failure
- When the 3D printing head is installed in the product, there are moving parts which can cause injury and heater elements which generate temperatures in the region of 200-300°C. Never reach inside the product while it is in operation, and never touch the print head while it is hot.
- Always allow the product to cool down completely before reaching inside.
- Never try to override the interlock on the door which protects the user from these dangerous temperatures.
- Contact with extruded material from the 3D print head may cause burns. Wait for printed objects to cool before removing them from the build plate.
- Do not leave Robox® unattended during operation.

### Safety Guidelines

- Follow all safety rules in this section and observe all cautions and warnings in this guide (and those from any additions and materials used in conjunction with the product).
- Before using the product, carefully read and understand all the manuals that were included with the package. Check for updated versions on our website.
- Do not modify any safety features or make modifications to Robox®. Doing so
  is prohibited and may void your warranty and/or affect the safe operation of
  the product.
- Use of print materials other than Robox® print materials and genuine Robox® components may void your warranty.
- Tie back long hair and loose clothing and keep fingers away from moving parts.

- Adult supervision is required; observe children closely and intervene as necessary to prevent potential safety problems and ensure the appropriate use of the product. Ensure small 3D prints are not accessible to young children
- These 3D prints are potential choking hazards for young children. Protective glasses should always be worn when removing support material, especially PLA.
- Do not use the product to create items which may be in contravention of laws or regulations applicable in your area.
- If you encounter technical problems with the product, contact a qualified service technician, your retailer or CEL Technology.

## Safety Symbols and Definitions

These safety symbols are used on product warning labels:



 Hot Surface Hazard: Information to prevent injury to yourself when trying to complete a task.



• Caution: Indicates a pinch point hazard that could cause person injury.



• Caution: Indicates an area which carries risk of electric shock - disconnect from the power outlet before accessing.



• Corrosive: Used on materials which may be corrosive and cause harm to skin and/or eyes. Wear protective eyewear and gloves.

## Legal Notice

The only warranties for CEL Technology products and services are set forth in the limited warranty statement accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. CEL Technology shall not be liable for technical or editorial errors or omissions contained herein.

## Copyright

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## Regulatory and Environmental Information

#### FCC Statements (U.S.A.)

The U.S. Federal Communications Commission (in Title 47 CFR Part 15 Subpart B - Unintentional Radiators) has specified that the following notices be brought to the attention of users of this product.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Shielded cables:** use of shielded data cables is required to comply with the Class A limits of Part 15 of the FCC Rules.

**Caution:** Pursuant to Part 15.21 of the FCC Rules, any changes or modifications to this equipment not expressly approved by CEL Technology Ltd. may cause harmful interference and void the FCC authorization to operate this equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

#### Canada Electromagnetic Compatibility (EMC)

#### • Normes de sécurité (Canada)

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe A prescrites dans le réglement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

#### • DOC statement (Canada)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

#### MSDS (Material Safety Data Sheets)

You can obtain current Material Safety Data Sheets for the materials used in the product at: www.cel-robox.com/materials

# Disposal of waste equipment by users in private households in the European Union (WEEE)

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



# The Restriction of the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment (EEE)

To our knowledge, lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE), including decabromodiphenyl ether are not used as raw materials in this product or its packaging, nor are they added during the production process or the end product. Based on a one-time analysis of this product by an independent laboratory, the listed substances were not detected in this product (method detection limit of 5 mg/kg for PBBs or PBDEs and 2 mg/kg for metals).

## Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

With reference to the SVHC Candidate List, as amended up to and including the 15 June 2015 update, this product is not known to contain any substances listed on the candidate list of Substances of Very High Concern (SVHC) in concentrations greater than or equal to 0.1% or those otherwise established under paragraph 6(b) of Article 56.

## **Declaration of Conformity**



Manufacturer: CEL Technology Ltd.

Unit 1604, 16/F Nan Fung Commercial Centre,

19 Lam Lok Street. Kowloon Bay, Hong Kong

**UK Representative:** C Enterprise (UK) Ltd.

Unit 3 Harbourmead, Harbour Road,

Portishead, North Somerset. BS20 7AY, United Kingdom

Type of Equipment: Personal Manufacturing Robot

Model Numbers: RBX01 and RBX02

We declare under our sole responsibility that the devices mentioned above comply with the following EU Directives:

> Electromagnetic Compatibility (EMC) Directive 2014/30/EU Low Voltage (LVD) Directive 2014/35/EU CF Directive 93/68/EEC **RoHS Directive** 2011/65/EU **REACH Directive** EC/1907/2006

Common Technical Specifications used for demonstration

of compliance:

EN55022:2010 + Amendment AC:2011, EN55024:2010 + Amendment A1: 2015 EN60950-1: 2006 + Amendments A11: 2009 + A1: 2010 + A12: 2011 + A2: 2014

EN61000-3-2:2014, EN61000-3-3:2013

IFC60950-1:2005 2nd Edition + Amendments A1:2009 + A2:2013

UL60950-1 2nd Edition, Dated 27/03/2007, Revision 14/10/2014

CSA-C22.2 No. 60950-1-07 2nd Edition, Dated 27/03/2007, Revision 14/10/2014

AS/NZS CISPR 22:2009 with Amendment 1 (2010) FCC Title 47 CFR Part 15 Subpart B (ANSI C63.4-2014)

1st September 2016 Date of Validity:

**Design and Technical** Construction File Maintained At:

CEL Technology Ltd. C Enterprise (UK) Ltd. Unit 1604, 16/F Nan Fung Unit 3 Harbourmead, Harbour Road,

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**Authorised Signatory:** Kenneth Tam Christopher Elsworthy Position in Company: Chief Operating Officer Chief Executive Officer

Signatures:









