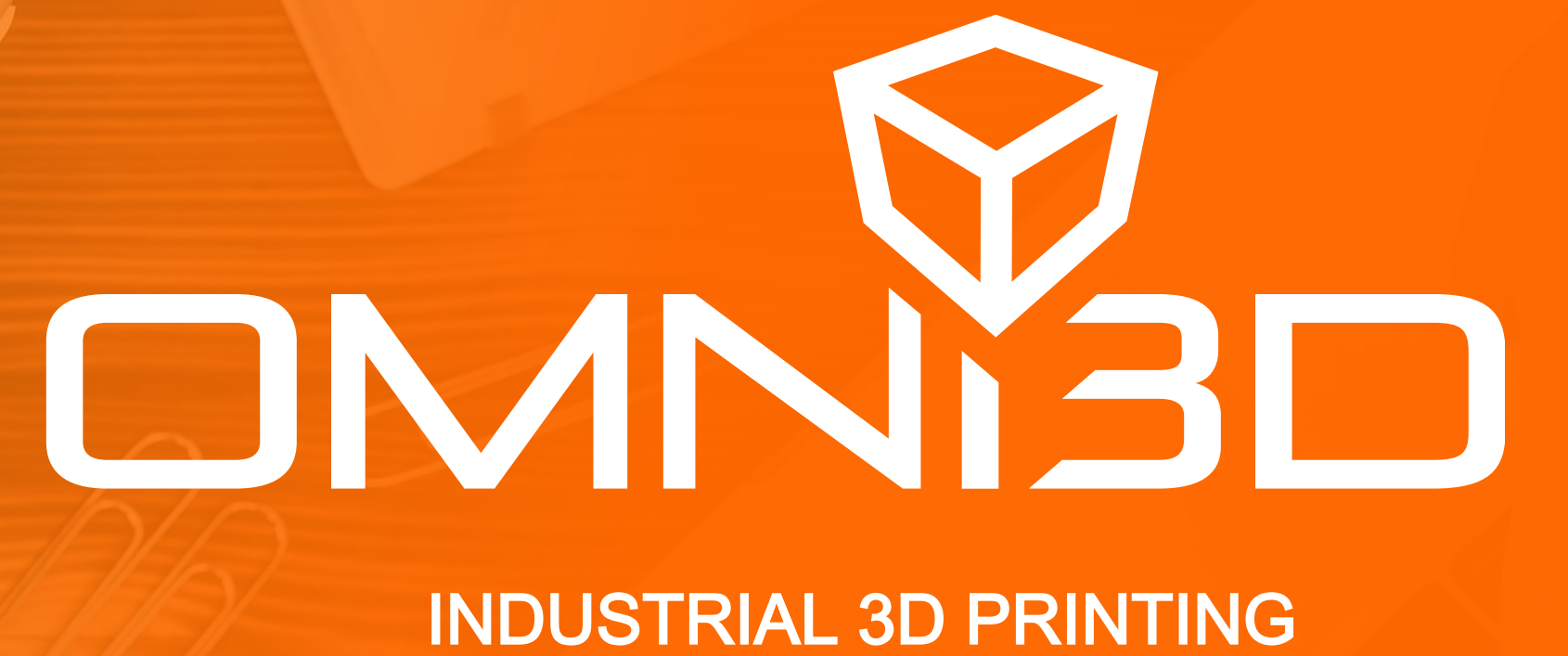




Welcome in Omni3D's World



INDUSTRIAL PRINTING 3D

Tomasz Garniec
Export Manager

COMPANY MILESTONES



ABOUT US

We are the first Polish manufacturer of industrial 3D printers in **FFF technology**.

We offer industrial **3D printing systems** and **3D printing on demand**.

Award winning technology

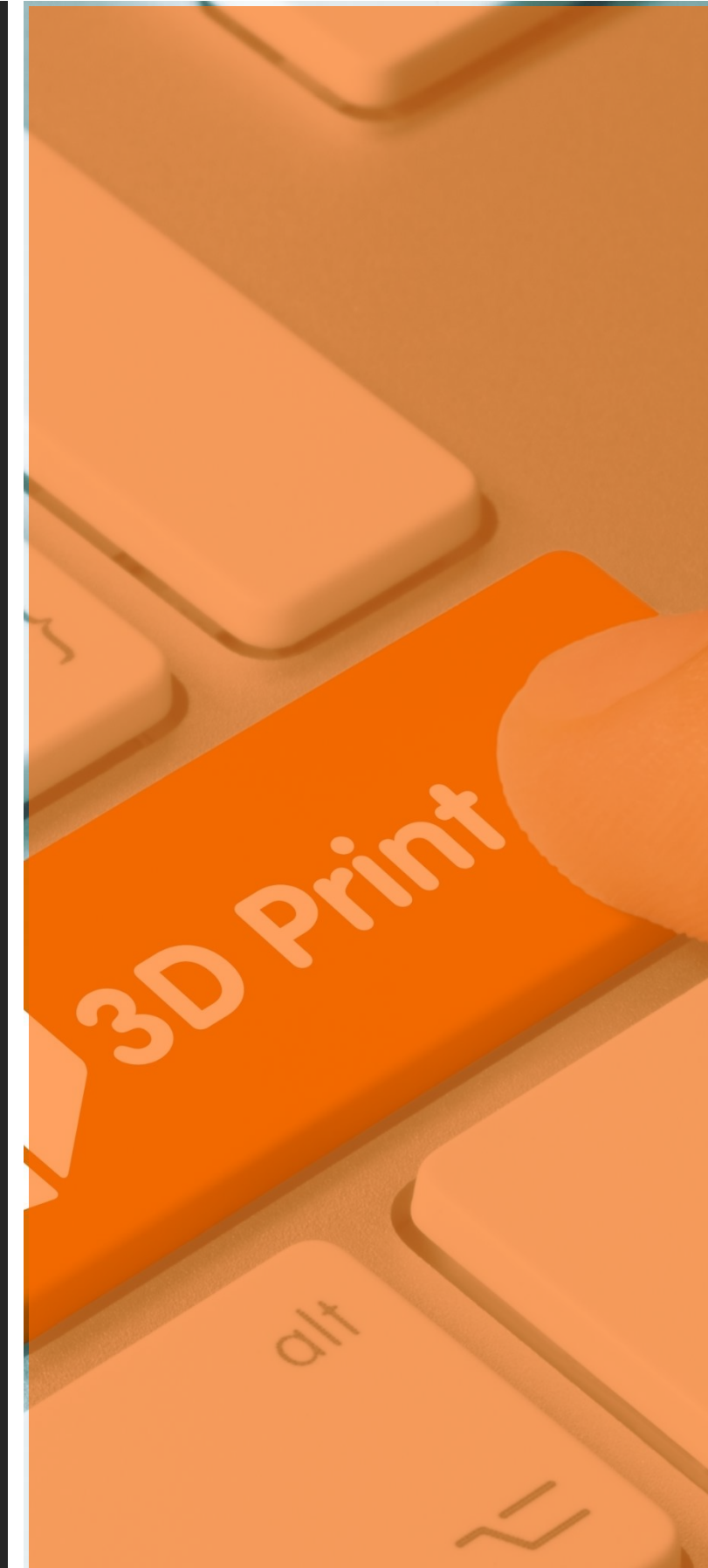


MADE IN EU

Our products are designed and manufactured in Europe

2

Production plants



7

YEARS

of experience and more than 30 peoples working for Your setisfaction

KEY HIGHLIGHTS

Available packages also
include:

- post-sales services,
- audits,
- installation,
- training,
- service and filaments.

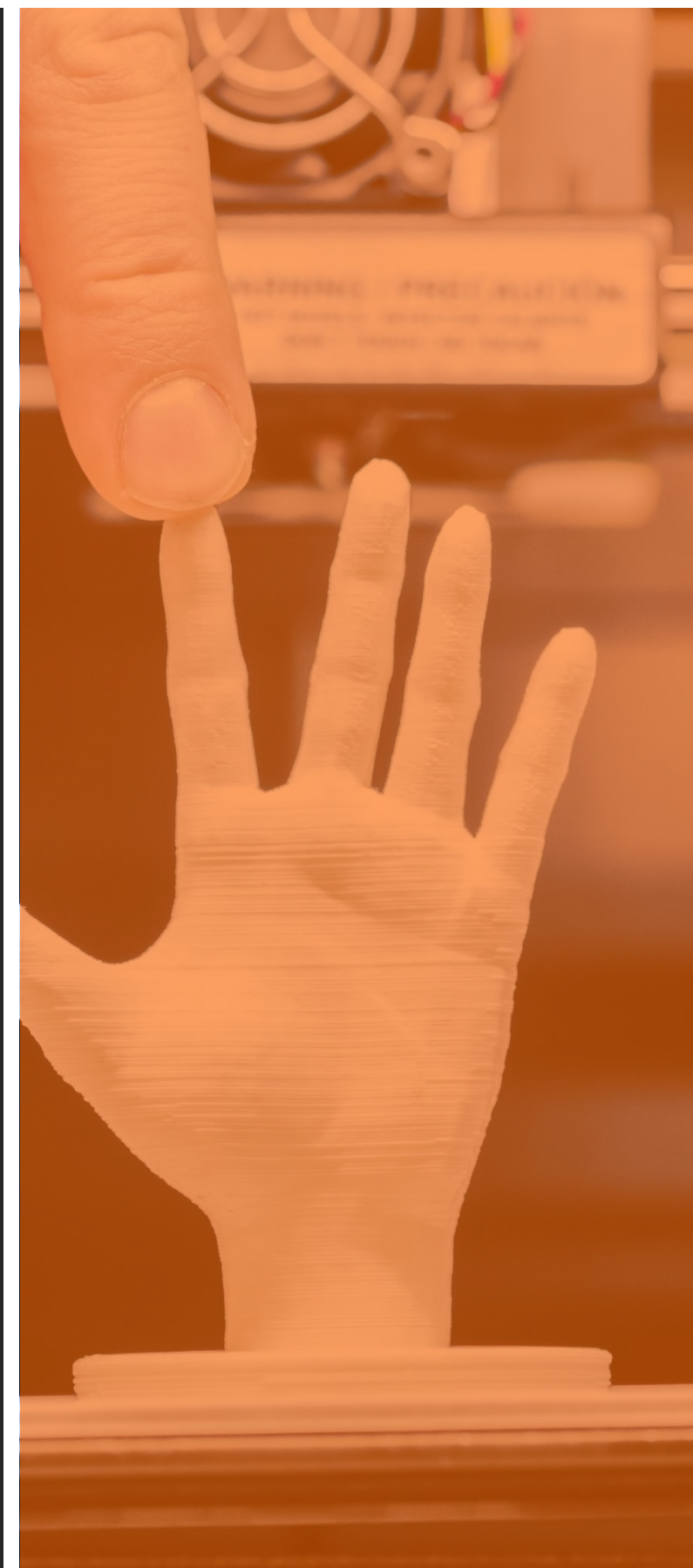


**Big Building
Value**

460mmx460x
570mm

2

Fully useful
Technological
Patents



21

AUTHORIZED
filaments



OMNI3D Factory 2.0 NET?

Filament extrusion = 3D Printing

KEY HIGHLIGHTS ABOUT PRINTING

Right printing depends of:

- Filament preparation,
- Stable extrusion (pressure and temperature),
- Fully controlled air flow during printing,
- Stable temperature of nozzles and chamber,
- Drying process of filament and printout.

Cooling System for extruders

Patented
system
that gives stable
pressure

Fully Controlled Heated Chamber with Air flow

For filament
drying, for
stable air flow
during printing
and drying of
the printouts

A photograph of an Omni3D 3D printer, showing its internal structure and the printing process. The printer is a filament extrusion type, with a transparent chamber and a heated bed.

Omni3D's
Printers
give You

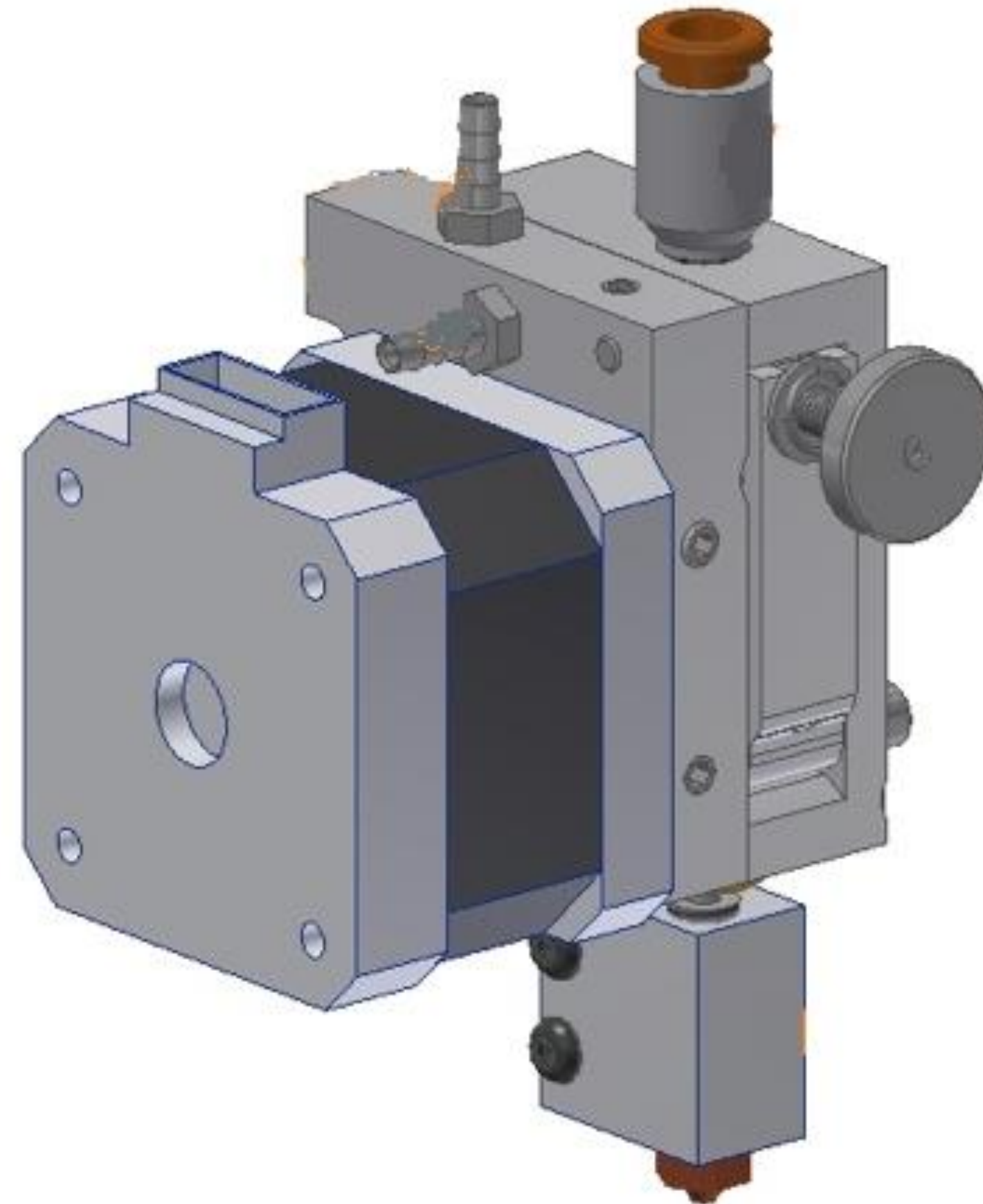
Universal Construction of printing heads

Hardness
steel
nozzles for all
filaments type

Cooling system

OMNI3D

- Reducing temperature in extruder by 40C
- Cooling the upper part of nozzles
- Keeps filament tight – far from Deflection Temperature



3D Printing process

- Reducing temperature at feeding gear
- Reducing the temperature of filament on feeding gear
- Reducing the temperature of feeding gear motor

KEY HIGHLIGHTS ABOUT PRINTING

Right printing depends of:

- **Warping control,**
- **Filament control**
- **Bad –**
460mmx460mmx570mm
- **Ceramic Glass surface**
- **Drying process.**

Filament flow control

Sensor
that
gives an info not
just if the filament is
inside but how it
flows

High bed Temperature And HT Nozzle

Up to 150C –
and a Ceramic
glass surface to
minimize warping –
and
Optional HT up to
500C

Printing Area, Filament Flow

Omni3D's
Printers
give You

Big Printing Area

0,121m³

Factory^{2.0} NET



0,121m³

PRINTING AREA



AUTOMATIC PLATFORM CALIBRATION, FILAMENT FLOW SENSOR AND CONTROL

The selected function will optimize your work and allow you to make 3D printouts fast and effectively. Optionally the CARBON + HEPA filter



BUILD VOLUME 460x460x570mm

You can print big elements or a few smaller elements at the same time.



2 EXTRUDERS

Print sophisticated and unique shapes with the use of a dedicated support material.

The 3D printer has been additionally equipped with a inactive head lifting system. Optionally a high-temperature head, up to 500°C.



ENCLOSED AND HEATED CHAMBER

It makes it possible to print large objects using industrial grade materials, for example ABS.



LAN AND WEB (FARM) MANAGING SYSTEM

System that give a possibility to manage the printer or a group of printers by LAN connection or dedicated WEB site



OMNI 3D

Factory^{2.0}NET



Filaments

BASIC Filaments

-  ABS42
-  Ultrafuse ABS Fusion+ 750g
-  ASA
-  PLA
-  PC-ABS
-  PET-G32
-  HIPS-20

FLEXIBLE AND ENGINEERING Filaments

-  TPU
-  PA-6/66
-  CF-PA-12
-  XSTRAND GF-PA-6
-  PA-12
-  3DXSTT ESD-PETG

INDUSTRIAL Filaments

-  THERMEC ZED (PPS)
-  PEKK-A
-  CF-PEKK
-  PVC (VINYL 303)

SUPPORT Filaments

-  ODS-20
-  WS-20

KEY HIGHLIGHTS ABOUT NET

Unique for Factory 2.0 NET:

- Controlled by Lan ,
- Network Managing
System = FARM
- User control system

LAN Operating

LAN
connection with
inside system web
control – with multi-
options
- Inc. Updated

FARM

Managing
system
of a group of
printers

Omni3D's
Printers
give You

Net operating

User and process Control System

User
identification,
Events
control, IP
Camera for
Full process
control



OMNIB3D LAN Managing System of Single Printer

OMNI3D Factory NET

192.168.1.8:8080/Dashboard

OMNI3D Factory NET

OMNI3D

UPLOAD & START

EMERGENCY STOP

Machine Control

Status

Dashboard

Events

Files

Settings

General

Status

Idle

Tool Position	X 240.0	Y 230.0	Z 12.00
Extruder Drives	Drive 0 0.000 m	Drive 1 0.000 m	
Speeds	Requested Speed 0 mm/s		Top Speed 0 mm/s
Sensors	Vin 24.2 V	MCU Temperature 31.5 C	Z-Probe 0

Tools

Extra

Control All

Tool	Heater	Current	Active	Standby
T0 T0	Heater 1 active	249.9 C	250	250
T1 T1	Heater 2 standby	199.9 C	230	200
Bed	Heater 0 active	111.5 C	105	0
Chamber	Heater 3 off	35.0 C	0	

Temperature Chart

Heater 0

Heater 1

Heater 2

Heater 3

*MCU

HOME XY

Machine Movement

< X-100	< X-50	< X-10	< X-1	< X-0.1	X+0.1 >	X+1 >	X+10 >	X+50 >	X+100 >
< Y-100	< Y-50	< Y-10	< Y-1	< Y-0.1	Y+0.1 >	Y+1 >	Y+10 >	Y+50 >	Y+100 >
< Z-50	< Z-25	< Z-5	< Z-0.5	< Z-0.05	Z+0.05 >	Z+0.5 >	Z+5 >	Z+25 >	Z+50 >

Fan Control

Fan Selection:

TOOL FAN

FAN 0

FAN 1

0

+

Extrusion Control

Feed amount in mm:

100 50 20 10 5 1

Feedrate in mm/s:

60 30 15 5 1

RETRACT

EXTRUDE

Speed Factor

100

+

Procedures

Root

Filament

Maintenance

Preheat

Camera

Status

Dashboard

Files

 General

Date ↓	Event
17.02.2020, 10:40:26	M203 Max speeds (mm/sec): X: 200.0, Y: 200.0, Z: 10.0, E: 100.0:100.0, min. speed 0.50
17.02.2020, 10:39:44	G37 Warning: G37 command is not supported
17.02.2020, 10:39:36	M589
17.02.2020, 10:39:33	M586
17.02.2020, 10:39:17	M210
17.02.2020, 10:39:12	M208 Axis limits X:70.0:505.0, Y:0.0:500.0, Z:0.0:500.0
17.02.2020, 10:39:08	Connected to 192.168.1.8:8080

OMNI3D Factory NET

192.168.1.8:8080/Files/Jobs

Szukaj z DuckDuck

OMNI3D

UPLOAD & START

EMERGENCY STOP

Machine Control

Status

Dashboard

Events

Files

Settings

General

SD CARD 0

G-Codes Directory

NEW DIRECTORY

REFRESH

UPLOAD G-CODE FILE(S)

	Filename	Size	Last modified ↑	Object Height	Layer Height	Filament Usage	Print Time	Simulated Time	Generated by
	fpi-test.gcode	275.2 KiB	26.11.2019, 12:45:08	36.17 mm	0.2 mm	6511.1 mm	1h 0s	n/a	Simplify3D(R) Version 4.1.1
	atlas2.gcode	9.7 MiB	26.11.2019, 12:45:27	175.71 mm	0.2 mm	58227.4 mm	3h 23m 0s	n/a	Simplify3D(R) Version 4.0.1
	NintendoGames.gcode	2.5 MiB	26.11.2019, 12:46:04	30 mm	0.3 mm	65089.7 mm	4h 43m 0s	n/a	Simplify3D(R) Version 4.1.1
	15_min_print.gcode	128.4 KiB	13.12.2019, 09:54:00	19.8 mm	0.2 mm	1232.2 mm	15m 0s	16m 5s	Simplify3D(R) Version 4.1.1
	Marvin_KeyChain.gcode	1.5 MiB	13.12.2019, 09:54:07	33 mm	0.2 mm	1895.3 mm	27m 0s	n/a	Simplify3D(R) Version 4.1.1
	marcin_T0_15min.gcode	674.6 KiB	13.12.2019, 09:54:11	18.6 mm	0.2 mm	429.2 mm	12m 0s	n/a	Simplify3D(R) Version 4.1.2
	testRygli.gcode	34 B	16.01.2020, 10:06:29	n/a	n/a	n/a	n/a	n/a	n/a
	40mmcube.gcode	161.0 KiB	22.01.2020, 12:58:00	20 mm	0.2 mm	1504.8 mm	16m 0s	n/a	Simplify3D(R) Version 4.1.2
	heaters.gcode	32 B	23.01.2020, 12:52:26	n/a	n/a	n/a	n/a	n/a	n/a
	TEST_FPI.gcode	4.5 KiB	13.02.2020, 10:36:15	n/a	n/a	n/a	n/a	n/a	n/a
	nawiew_harm.gcode	275.2 KiB	13.02.2020, 13:42:13	36.17 mm	0.2 mm	6511.1 mm	1h 0s	n/a	Simplify3D(R) Version 4.1.1
	SD_Card_Holder.gcode	1.7 MiB	13.02.2020, 13:42:15	13.4 mm	0.2 mm	4294.7 mm	45m 0s	n/a	Simplify3D(R) Version 4.1.2

Appearance

☒ Dark theme

Language

English

☒ Use binary file sizes

Notifications

☐ Do not close error messages automatically

Default notification timeout (ms)

5000

Omni Duet Web Control 2.0.0



Web Interface developed by [Christian Hammacher](#) for [Duet3D](#)

Licensed under the terms of the [GNU General Public License v3](#)

 UPLOAD SYSTEM FILES

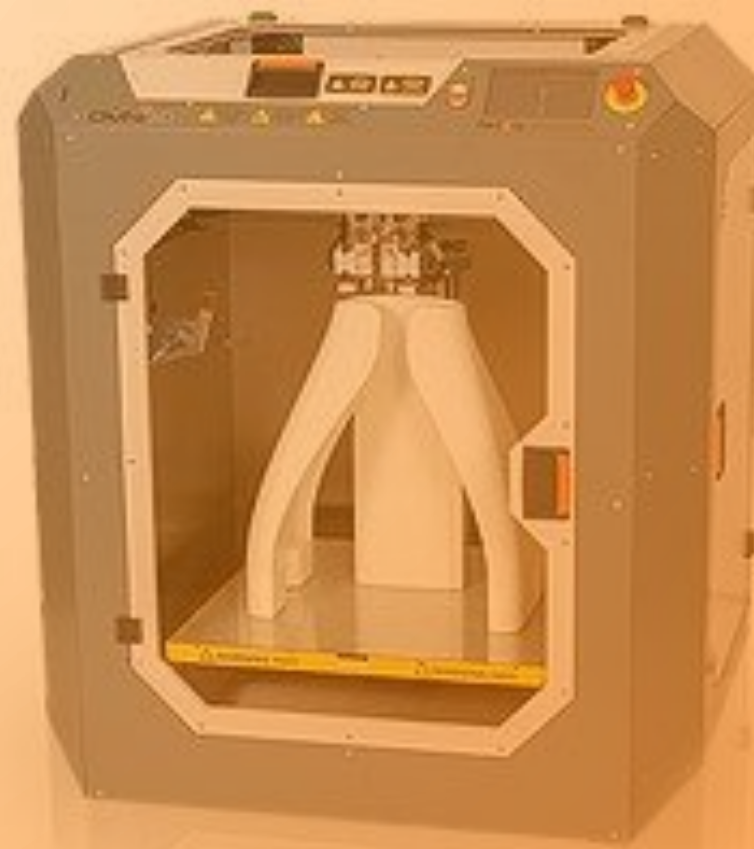
 **UPLOAD PROCEDURE FILE(S)**

Printers

Schedule

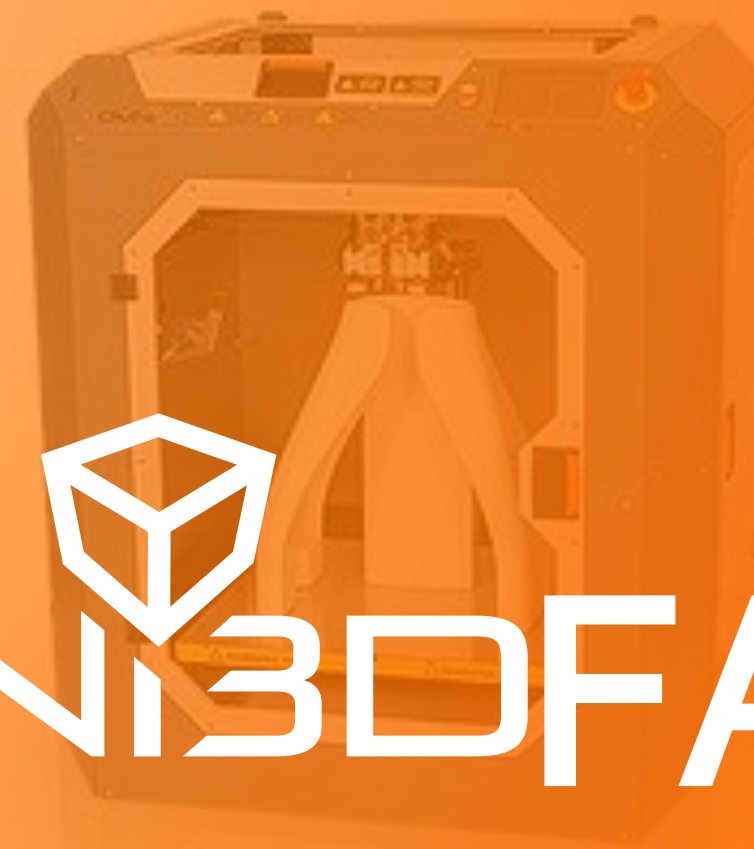
Monitor

Lite Asus (192.168.1.51)



Executing procedure

Lite VB (192.168.1.30)



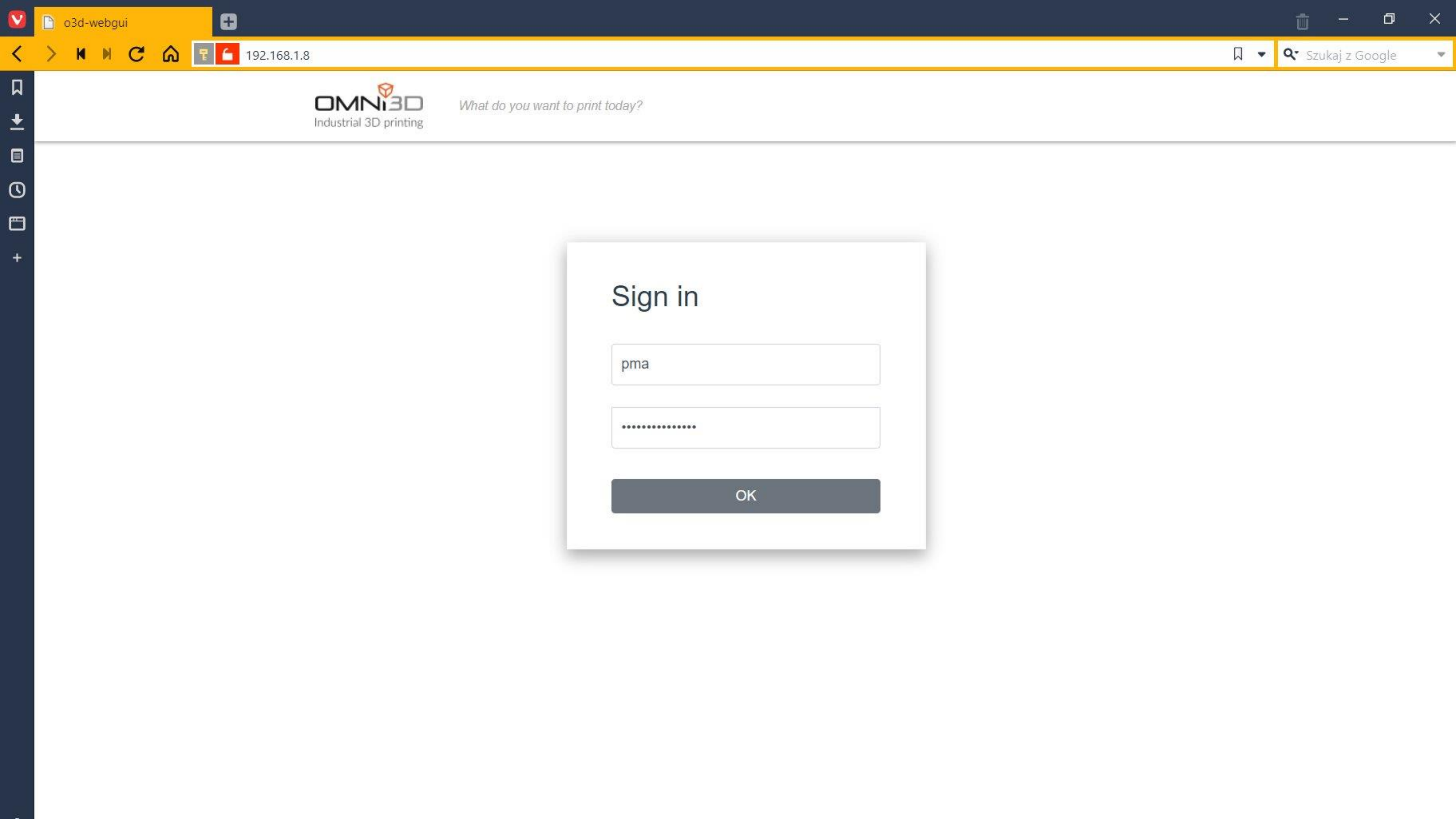
Printing

OMNI3DFARM Managing System

Lite Asus

OMNI 500 ASUS test platform

Executing procedure



Sign in

pma

.....

OK



Your account

Name

pma@omni3d.net

Set

Change password

Accounts

+ Add new user

Name	Group		
printroom@omni3d.net	User	Delete	Edit
pma@omni3d.net	Admin	Delete	Edit
service@omni3d.net	Service	Delete	Edit

o3d-webgui

192.168.1.8

Szukaj z Google

OMNI3D
Industrial 3D printing

What do you want to print today?

pma@omni3d.net

PrintersScheduleMonitor

Group settings

Host RnD (192.168.1.8)



Ready

RnD PMa (192.168.1.222)



Printing

RnD DW (192.168.1.123)



Offline

RnD PMa

Factory 2.0 NET

Printing

Pause

Stop

24%

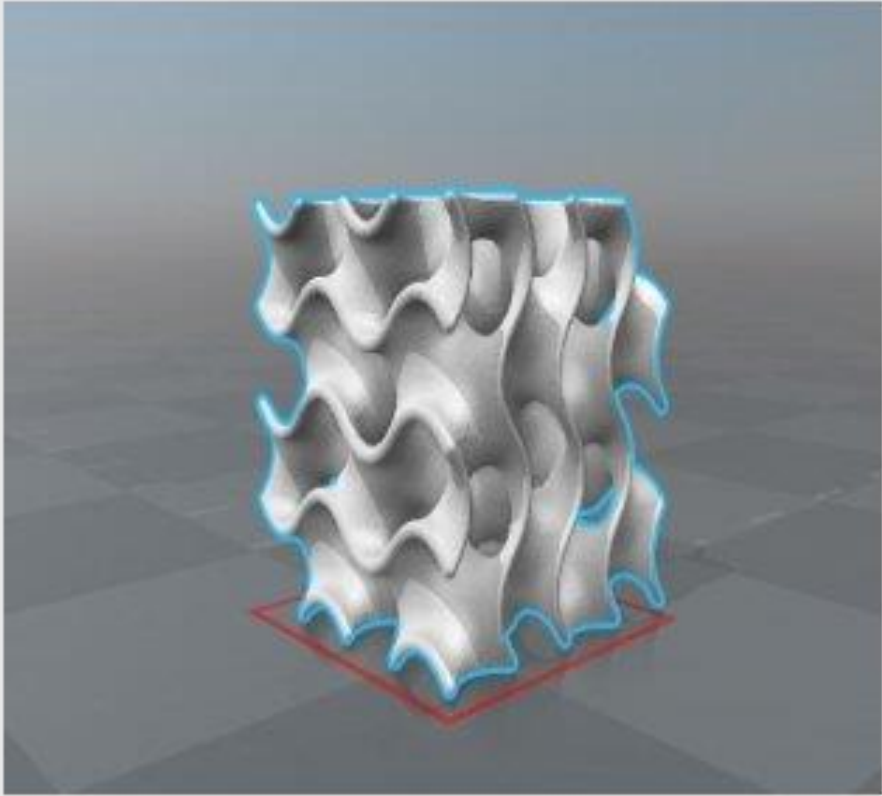
File information

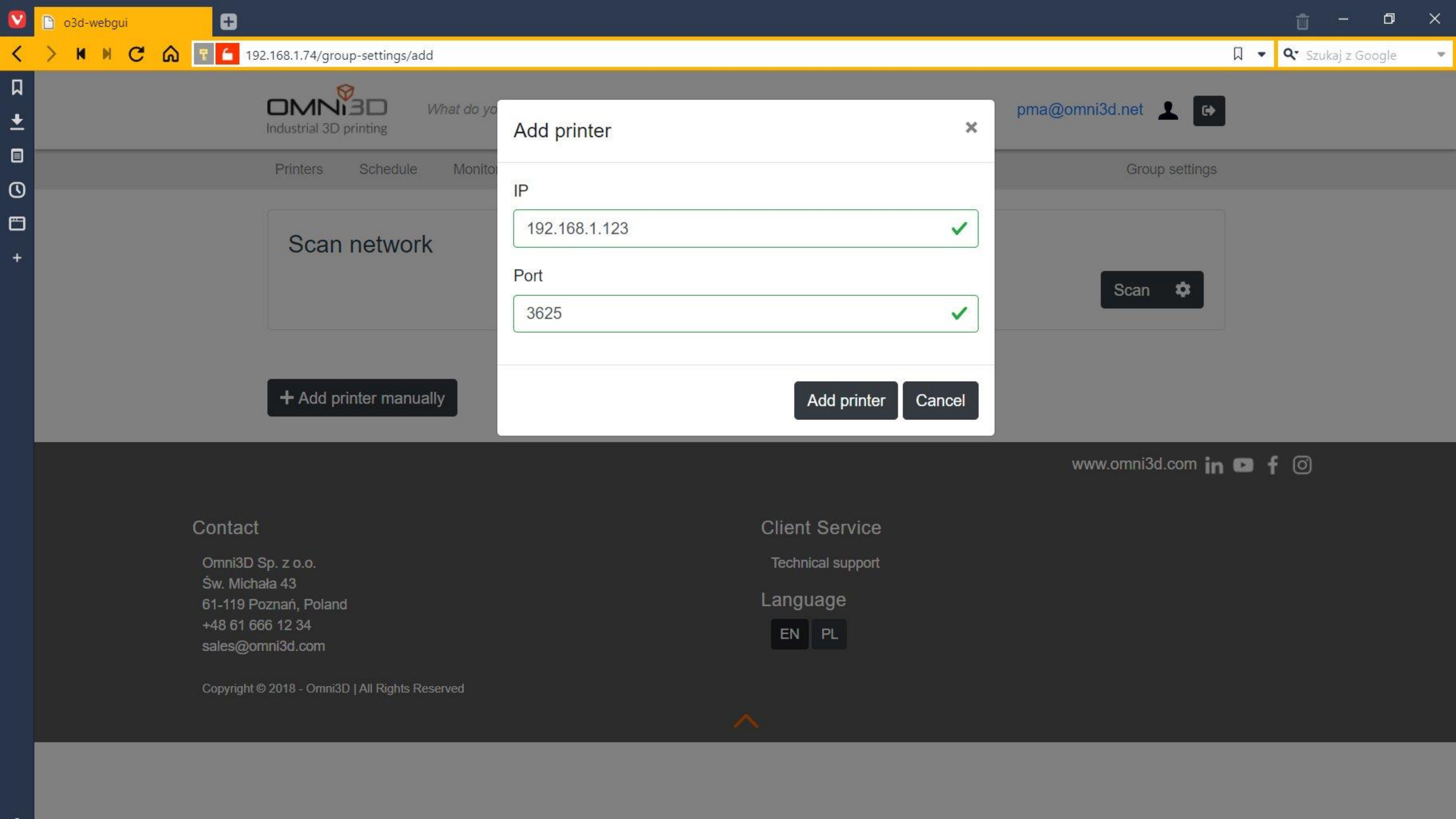
2ex_asus_case.gcode

Time left: 1m 31s

Started by: pma@omni3d.net

	Loaded		Required	
	Left	Right	Left	Right
Materials	none	none	ABS-42	HIPS
Length	0.00 m	0.00 m	2047.05 m	1777.58 m





Add printer

IP

192.168.1.123



Port

3625



+ Add printer manually

Add printer

Cancel

Contact

Omni3D Sp. z o.o.
Św. Michała 43
61-119 Poznań, Poland
+48 61 666 12 34
sales@omni3d.com

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Client Service

Technical support

Language

EN

PL

www.omni3d.com





What do you want to print today?

pma@omni3d.net

Printers

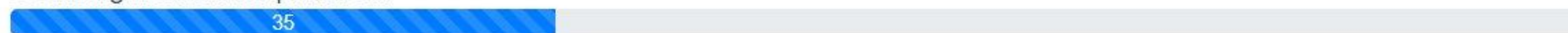
Schedule

Monitor

Group settings

Scan network

Scanning network for printers...



Cancel

+ Add printer manually

www.omni3d.com in YouTube Facebook Instagram

Contact

Omni3D Sp. z o.o.
Św. Michała 43
61-119 Poznań, Poland
+48 61 666 12 34
sales@omni3d.com

Client Service

Technical support

Language

EN PL



o3d-webgui

192.168.1.8/group-settings

Szukaj z Google

OMNI3D

Industrial 3D printing

What do you want to print today?

pma@omni3d.net

Printers

Schedule

Monitor

Group settings

Type to Search

Clear

+ Add new printer

Number	Name	Model	Serial number	IP	
1	Host RnD	Factory 2.0 NET	FA-2.0-0301122	192.168.1.8	Remove from group
2	RnD PMa	Factory 2.0 NET	FA-2.0-0572328	192.168.1.222	Remove from group
3	RnD DW	Factory 2.0 NET	FN-2.0-0331797	192.168.1.123	Remove from group

«

<

1

>

»

www.omni3d.com

in

f

Contact

Omni3D Sp. z o.o.

Św. Michała 43

61-119 Poznań, Poland

+48 61 666 12 34

sales@omni3d.com

Client Service

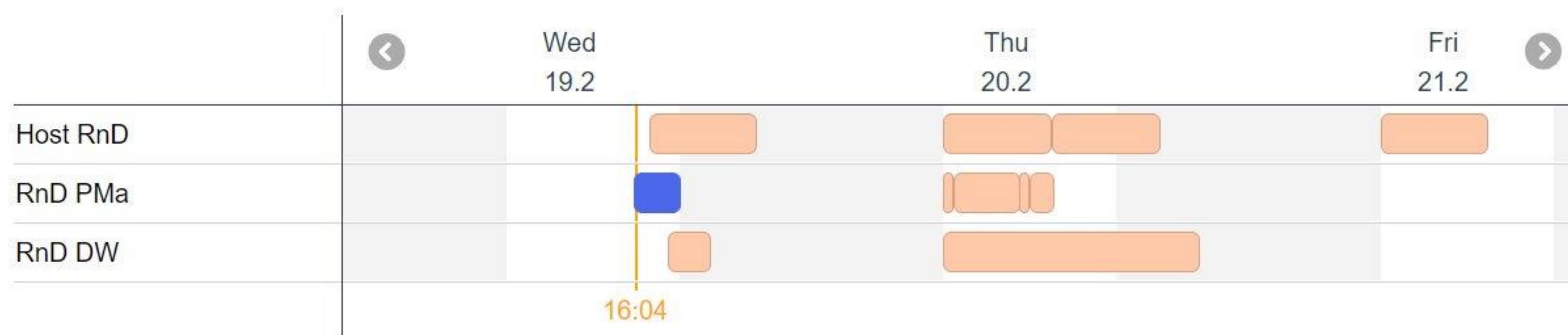
Technical support

Language

EN

PL

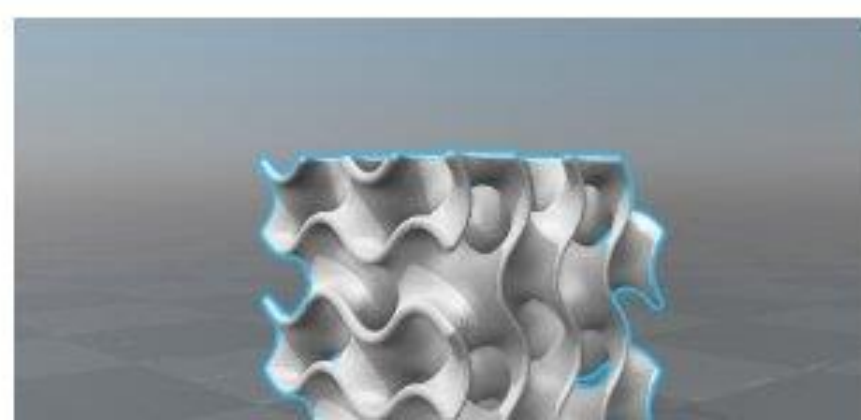
Copyright © 2018 - Omni3D | All Rights Reserved

 Settings

RnD PMa

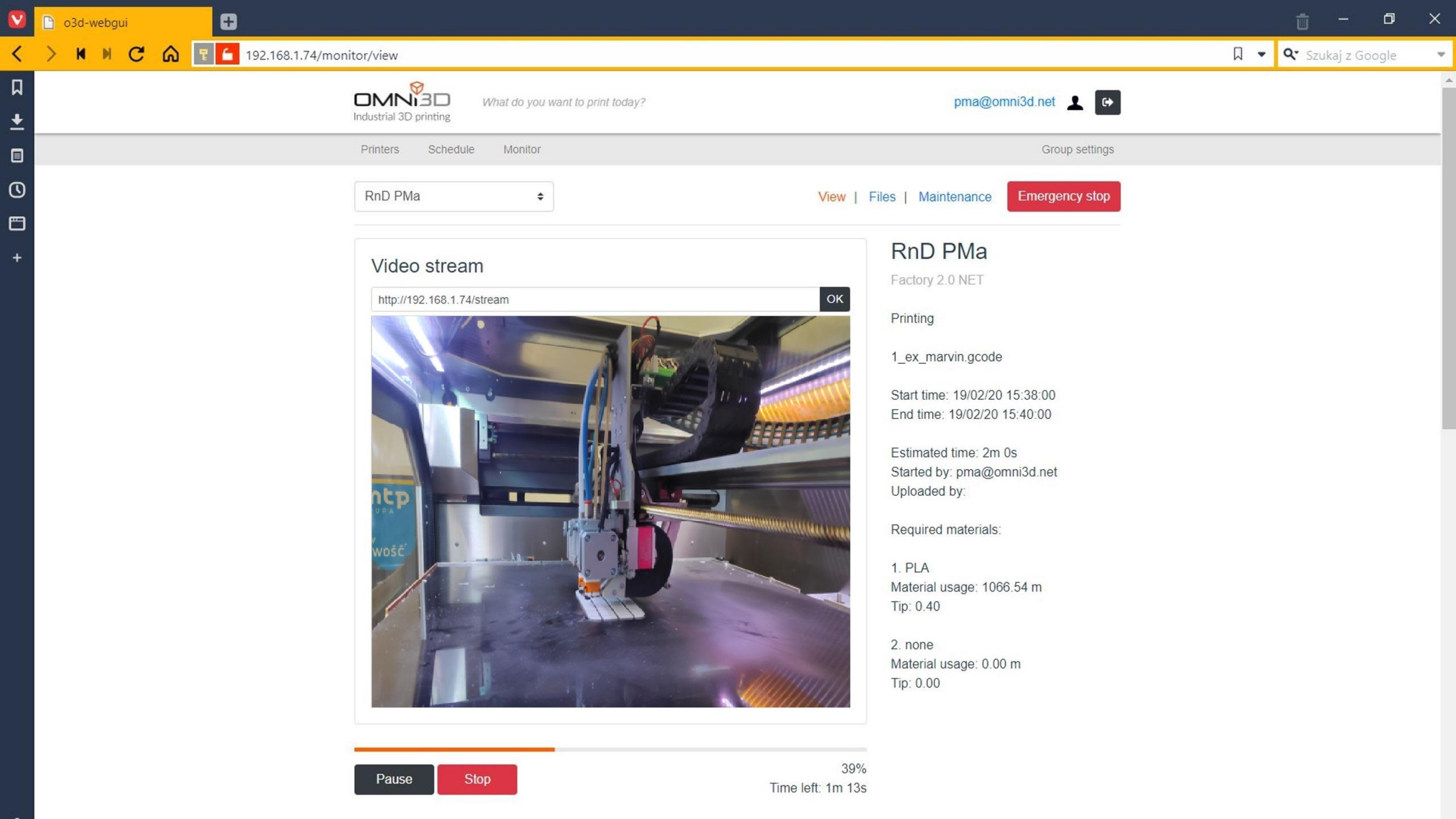
+ Add new print job

File Name	Planned Start Time	Estimated Stop Time	Estimated Time	Uploaded By
2ex_asus_case.gcode	19/02/20 16:00:00 📌	19/02/20 16:34:37	34 m 37 s	pma@omni3d.net



Materials

Head	Material	Required	Nozzle
------	----------	----------	--------



RnD PMa

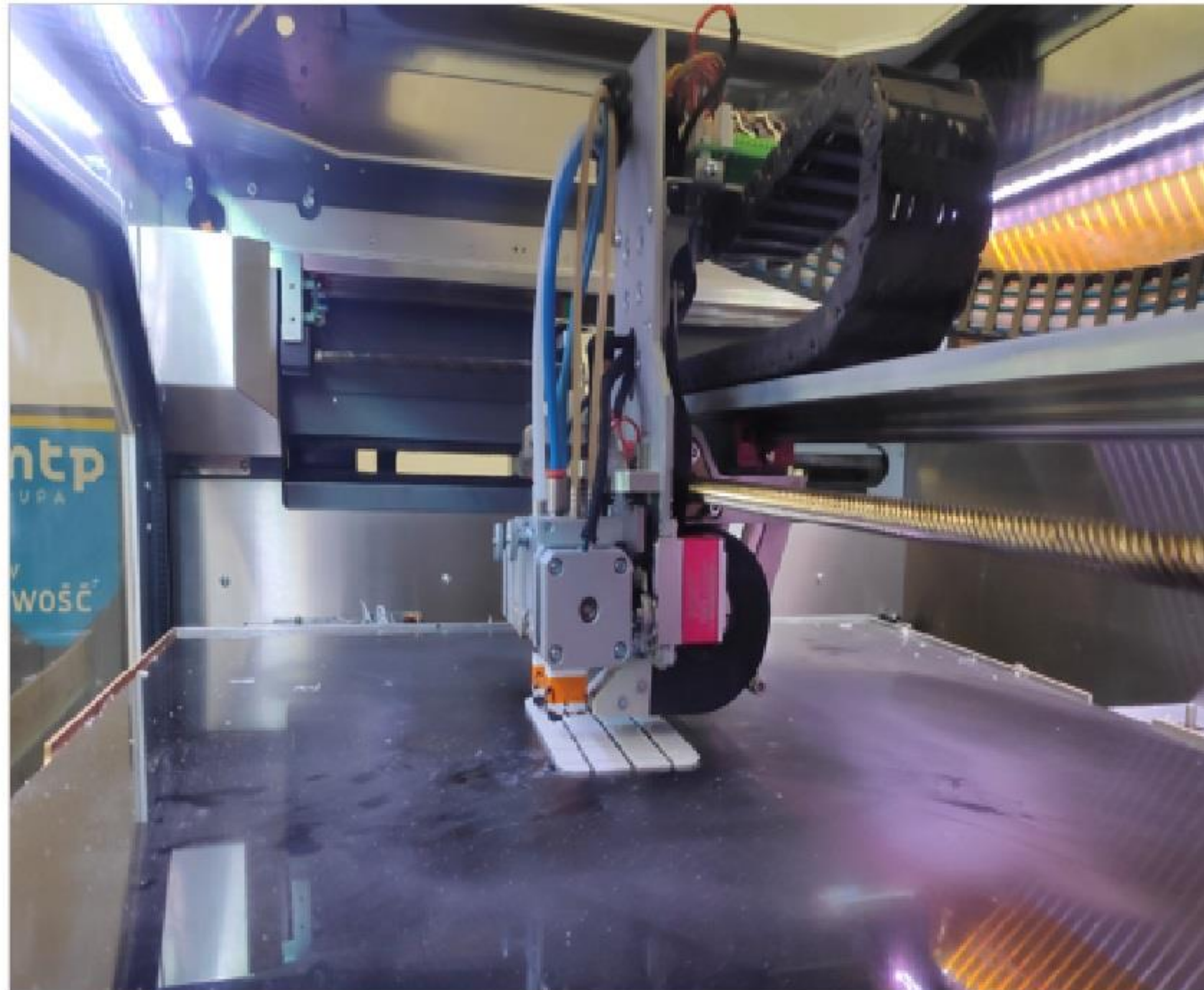
[View](#) | [Files](#) | [Maintenance](#)

Emergency stop

Video stream

http://192.168.1.74/stream

OK



RnD PMa

Factory 2.0 NET

Printing

1_ex_marvin.gcode

Start time: 19/02/20 15:38:00

End time: 19/02/20 15:40:00

Estimated time: 2m 0s

Started by: pma@omni3d.net

Uploaded by:

Required materials:

1. PLA

Material usage: 1066.54 m

Tip: 0.40

2. none

Material usage: 0.00 m

Tip: 0.00

Pause

Stop

39%

Time left: 1m 13s

o3d-webgui

192.168.1.74/monitor/files

Szukaj z Google

OMNI3D
Industrial 3D printing

What do you want to print today?

pma@omni3d.net

PrintersScheduleMonitor

Group settings

Host RnD

ViewFilesMaintenance

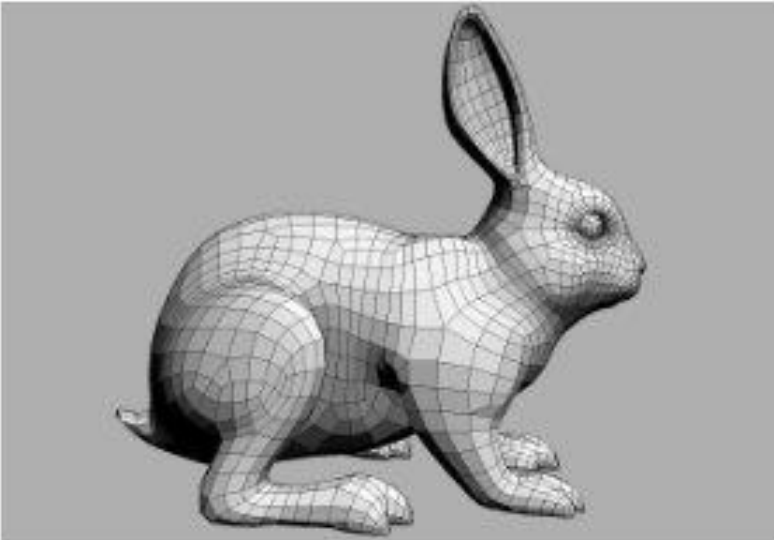
Emergency stop

Type to Search

Clear

Upload file

Number	Name	Size	Storage	Uploaded by
1	rabbit.gcode	128.36 kB	EPC	printroom@omni3d.net



Materials

Head	Material	Required	Nozzle
Left	ABS-42	1282.7	0.4
Right	none	0.0	0.0

MoveCopyDownload

Delete

2	40mmcube.gcode	160.96 kB	EPC	kk@omni3d.net
---	----------------	-----------	-----	---------------

o3d-webgui

192.168.1.8/monitor/maintenance

Szukaj z Google

OMNI3D

Industrial 3D printing

What do you want to print today?

pma@omni3d.net

Printers

Schedule

Monitor

Group settings

Host RnD

View

Files

Maintenance

Emergency stop

Printer information

Name

Host RnD

Model

Factory 2.0 NET

Serial number

FA-2.0-0301122

IP

192.168.1.8

Firmware versions

SBC: v0.9-RC2

Hardware: 2.05.13.800

E-steps

Left extruder

0,00

Set

Right extruder

98,00

Set

Offsets

X axis

0,05

mm

Set

Y axis

0,10

mm

Set

Z axis

0,07

mm

Set

extruder X

0,21

mm

Set

extruder Y

0,12

mm

Set

Stats

Total printing time:

3d 12h 48m 12s

Total ON time:

21d 17h 39m 17s

Total filament used by left head:

23.48 m

Total filament used by right head:

8.92 m

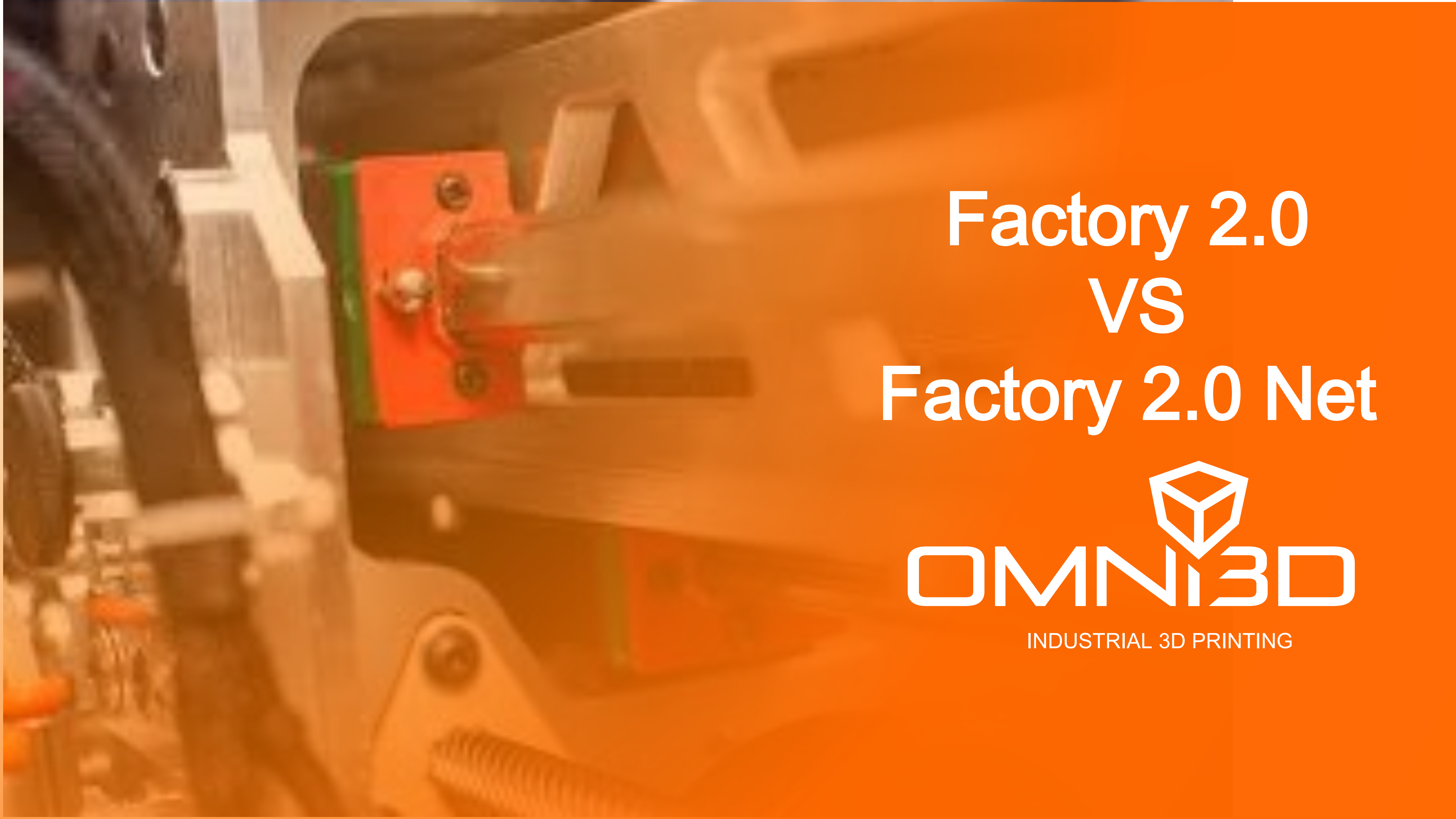


OMNIB3DSamples system

Omni3D Print Room Sample Printing



-  **15 MACHINES**
Full professional Omni3D machines with modern equipment that gives high repeatability
-  **DEDICATED WEB**
Web side with individual calculations and all necessary informations
-  **TECHNOLOGY SUPPORT**
To follow and control the process from start to the end
-  **MULTI FILAMENTS CHOICE**
All filaments included the individual created for the customer
-  **HELP DESK – CAD Design**
Specialists of CAD by request to prepare the project right



Factory 2.0 VS Factory 2.0 Net



OMNI3D

INDUSTRIAL 3D PRINTING

MECHANICS

Factory_{2.0}NETFactory_{2.0}

Doors for electronic locked by key	-
Filament chamber adapted to 3kg spools	Filament chamber adapted to 1kg spools
Insulation of the printing chamber with seals	-
Dedicated chamber for the camera	-
Electromagnetic bolts	Electromechanical bolts
230VAC power supply (Option 110VAC)	110VAC/230VAC power supply
Z axis with bump sensors	Z axis with potentiometric sensor
Ceramic glass on bed	Tempered glass on bed
Lower weight of X and Y modules	-

ELECTRONICS

Factory_{2.0}NETFactory_{2.0}

Stepper motor controllers up to 256 micro steps	Stepper motor controllers up to 16 micro steps
Router WiFi/Ethernet	-
Camera	-
Single board electronics	Multi boards electronics
No control electronics in the print chamber	HEAD board in the print chamber
Option of adding the HT 500 ° C module	Option of adding the HT 420 ° C module

SOFTWARE

Factory_{2.0}NETFactory_{2.0}

Resume printing after a power outage	-
DWC / Main Board / LCD updates	Main board update via SD CARD
Printing with table unevenness compensation	-
Even recording	-
Detection of lost steps	-
Stepper motor short circuit detection	-
Internal storage	-
Pin-locked LCD panel	-

WEB SITE

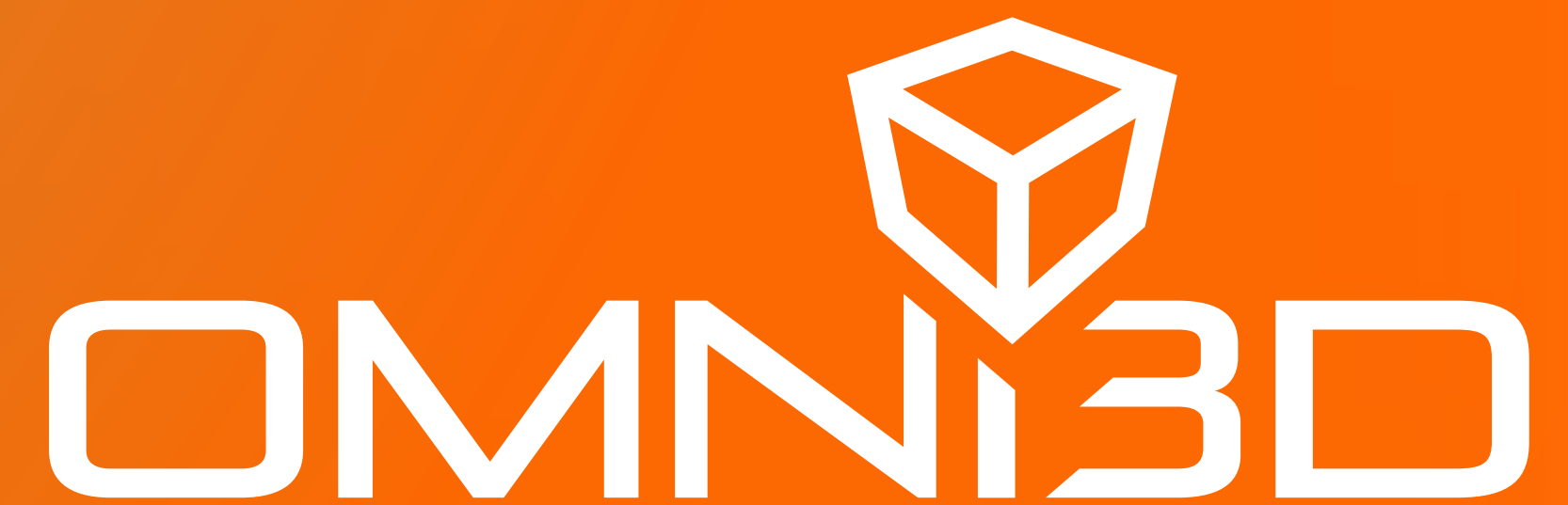
Factory_{2.0}NET

Factory_{2.0}

OMNI3D

Uploading and managing GCODE files	NO WEB
Update DWC / Main Board / LCD via WWW	
View machine parameters	
Performing procedures	
Preview from IP camera	
Password protected for access to the WEB	

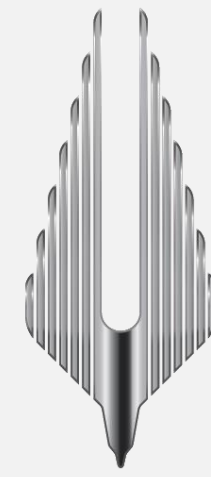
TRUSTED BY MANY
OWNED BY THE
BEST



INDUSTRIAL 3D PRINTING

CASE - STUDY

- Prototyping
- Small value production
- Customize production
- logistic
- Spare parts production
- Tooling



Successful Stories



BOSCH



COMPANIES THAT TRUST OMNI3D



SIEMENS

S A M S U N G



BAE SYSTEMS



OLYMPUS



Volkswagen



MEYRA

MAHLE



GE Power



IVECO



INDUSTRIAL 3D PRINTING

THANK YOU FOR YOUR ATTENTION

Tomasz Garniec

tg@omni3d.net
www.omni3d.com

If You have any questions do not hesitate to contact me