

Robo E3 & E3 Pro | Network Connectivity

Thank you for purchasing a Robo E3 or E3 Pro printer! This document can help you prepare your network for your new 3D printers. If you have any questions, please contact help@robo3d.com for assistance.

Robo 3D Printer Operating System & Wi-Fi Frequency:

Based off Linux 2.4GHz



Communication to cloud servers and local network:

1. **Port 443** - Encrypted https communication between the cloud server and the printer
2. **Port 80** - http Service request port
3. **Port 8080** - Camera feed. displays video streaming ports, user slicing software and local network viewing videos (<http://localhost:8080/?action=stream>)
4. **Port 8899** - Communication between the printer and RoboPrint
5. **Port 19000** - Enable the multicast service for RoboPrint to remotely search printers

Make sure the following domains are whitelisted: *(What is it for?)*

<https://www.mystemkits.com>

<http://cloud.robo3d.com>

<https://acorn.3dPrinterOs.com>

<https://cloud.3dPrinterOs.com>

<https://cloud.3dPrinterOs.com/register>

<https://cloud.3dPrinterOs.com/command>

https://cloud.3dPrinterOs.com/get_queued_jobs

https://cloud.3dPrinterOs.com/start_queued_job

https://cloud.3dPrinterOs.com/cancel_queued_job

<https://cloud.3dPrinterOs.com/camera>

<http://ip-api.com/json>

Curriculum Platform

RoboCloud Slicer

MyStemKits Testing Cloud Service

MyStemKits Cloud Service

Register

Command

get queued job

start queued job

cancel queued job

view camera

Used to check whether the network is connected

Connecting E3 and E3 Pro to the internet:

- 1) Ethernet
 - a. Best option (our suggestion for connection)
 - b. Make sure printer IP address is whitelisted if your network blacklists IP addresses.
- 2) Wi-Fi
 - a. Make sure printer IP address is whitelisted if your network blacklists IP addresses.
 - b. Use network without password or hidden network by clicking “other” in the Wi-Fi section on E3 and E3 pro.
- 3) Hotspot
 - a. Connect computer wireless to hotspot IP address on RoboPrint desktop software. Note, this option will ONLY work with RoboPrint and will not work with MyStemKits or RoboCloud.

Software to use:

1) Chromebook/iPad:

- a. RoboCloud:
 - i. 3D printers can only be connected to a single account. Either send print files to admin account holder or give access to account credentials to users to use this. Multiple printers can be on one account.
 - ii. Go to <http://cloud.robos3d.com> to create your admin account. It will email an activation code to you to verify the email address is real.
- b. MyStemKits (MSK):
 - i. Computer and printer do not need to be on the same network. They just need to each be on a network. MyStemKits school plans allow multiple teacher accounts all with access to the same printers. Multiple printers can be on one account or shared with multiple accounts within the school. There are NO student accounts on either RoboCloud or MSK.
 - ii. Go to www.MystemKits.com and click “Register Activation Code” if you have purchased an MSK plan and insert the code you received in your email upon purchase. Otherwise, you can register a Starter Plan using the postcard in the box with the printer.

2) Desktop:

- a. RoboPrint:
 - i. Local:
 1. Slice .stl file and put the newly generated .gx file onto flash drive, then put flash drive in printer.
 - ii. Wireless:
 1. Make sure they are on same Wi-Fi network for direct printing to RoboPrint.
 2. Make sure computer is connected to printer hotspot for direct printing.
- b. RoboCloud& MyStemKits:
 - i. See Chromebook/iPad section above.