



RE: [EXT] Trouble assigning IP to Arduino Nano 33 IoT (Bicopter setup)

From Enikov, Eniko T - (enikov) <enikov@arizona.edu>

Date Fri 10/10/2025 7:17 PM

To Kenneth Furrer <kfurrer@ucmerced.edu>

There could be several issues. The computer should use the same network as the device. Also, the Arduino nano does not support 5G that many school networks use. I suggest trying using hotspot on your phone and put the PC and the Arduino on the same network. Maybe we can try a zoom session. I presume you installed the arduino support package from Mathworks. I bought a DHCP router to use on-campus and avoid the campus WiFi.

There could also be connectivity issue - com ports not configured, since the IP address comes via a COM port. There are two Com ports - one is for bootloader, the other for communication. These are generally recognized automatically, but sometimes there is a need to update matlab installation. You can assign them manually, if you know the port numbers from the device manager. If you open device manager and look at com ports when arduino is connected, you will see the active com number. When you press the small button on arduino, the com changes to the boot loader. Double pressing goes back to communication port. You could try manual port setting.

If these suggestions are not clear/do not solve the issue, we can do a zoom session. Usually evening hours after 5 or 6 pm are OK for me.

Nice print of the bicopter by the way!

Dr Enikov

Sent from my T-Mobile 5G Device

----- Original message -----

From: Kenneth Furrer <kfurrer@ucmerced.edu>

Date: 10/10/25 4:36 PM (GMT-07:00)

To: "Enikov, Eniko T - (enikov)" <enikov@arizona.edu>

Subject: [EXT] Trouble assigning IP to Arduino Nano 33 IoT (Bicopter setup)

External Email



Hi Dr. Enikov,

My name is **Kenneth Furrer**, and I'm a Mechanical Engineering student at **UC Merced**. I've been referencing your *Arduino-based bi-copter experiments* materials while setting up my own bi-copter test platform.

I'm currently trying to deploy a Simulink model to the **Arduino Nano 33 IoT**, but I'm getting the following error during deployment:

Failed to assign IP address to Arduino Nano 33 IoT board.

I've already updated the **SAMD core** and **WiFinINA firmware**, and MATLAB recognizes the board. However, it seems to fail when attempting to set or read the IP, even on simple network-connect examples.

Since your bicopter project used similar hardware and MATLAB integration, I wanted to ask if you've encountered this issue before or if there's a specific firmware/library setup that worked for you.

Thank you very much for your time and any insight you could share. I really admire the work you did with the bicopter platform—it's been an inspiration for my project.

Best regards,

Kenneth Furrer

Mechanical Engineering • UC Merced

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