Connecting to Windows 10 with EV3 MicroPython using Bluetooth

Turning on Bluetooth on EV3 MicroPython

1) Turn on EV3 with MicroPython image
2) Go to “Wireless and Networks” > “Bluetooth”
3) If Bluetooth not available, press “Escape”, a.k.a. “Back” grey button until an option to “Reboot” appears.
4) If available, make sure “Powered” and “Visible” are checked
5) Go back to “Wireless and Networks” > “Tethering”
6) Make sure “Bluetooth” is checked
7) Go back to “Wireless and Networks” > “Bluetooth”

Turning on Bluetooth on Windows PC for the first time

8) On PC Windows, search for “Bluetooth & other devices”
9) Turn on Bluetooth
10) On the right side bar, select “More Bluetooth options”
11) In the dialog box that pops up, under “Options” tab, in the “Discovery” pane,
12) Make sure the “Allow Bluetooth devices to find this PC” is checked
13) Press “OK” to close the dialog box

Turning on Bluetooth & Scanning for PC from EV3

14) On the EV3, go back to “Wireless and Networks” > “Bluetooth”
15) Select “Start Scan”
16) If the instructions are followed, the PC could be seen under “Devices” within 5 seconds.
17) Select your PC name under “Devices”

Pairing EV3 MicroPython to Windows from EV3

You should do the following five steps quickly, within 30 seconds.

18) On the EV3, click “Pair”
19) A notification on the PC should prompt you to set up the connection. Click it to set up.
20) Accept the Pass key on both the PC and the EV3.
21) Close the dialog box when the connection succeeded.
22) When Windows is done, it will inform you that your “device is ready to go”

Connecting EV3 to Windows

You may need to repeat the following steps if the Bluetooth does not connect automatically after rebooting, or if a reboot occurs after the Bluetooth is unavailable.

23) Connect the EV3 brick to the computer using USB.
24) Wait until Windows notifies you that the “Device is ready to go”
25) On the EV3, click “Network Connection”
26) Make sure “Connect automatically” is checked
27) Select “IPV4”

28) Select “Change” and select “Load Windows defaults”
29) Go back and select “Connect”. When successful, the top of the screen should show “192.168.137.3”

30) On VSCode, open the Explorer tab from the left sidebar, or use the shortcut Ctrl+Shift+E
31) Under “EV3DEV DEVICE BROWSER” on the bottom left, create a new connection or right click an existing connection and selecting “Connect to a different device”
32) Select “ev3dev Bluetooth Network Connection” and wait for the connection to establish. You can select “ev3dev Ethernet (…)” for a faster USB connection.
33) You can now remove the USB cable. Select “F5” to run the program.
34) The robot now automatically connects without the USB cable from now on, assuming your PC’s Bluetooth is turned on and if the Bluetooth is available on EV3. You just need to “Reconnect” under “EV3DEV DEVICE MANAGER” in VSCode.