# Deploying Code to the Hero Board Demo Bot

Occasionally, the Demo Bot's code (hosted on the Hero Board) will disappear and not run after a power cycle of the robot. Here is how to deploy code to the Demo Bot for when this happens.

1.) **Turn on the Demo laptop and robot.** You should know how to do this. Simply press the power button (located at the top right of the keyboard), and login. Make sure the robot is turned on.

2.) **Open Visual Studio 2017.** There should be an icon on the taskbar at the bottom of your screen, that looks like this:
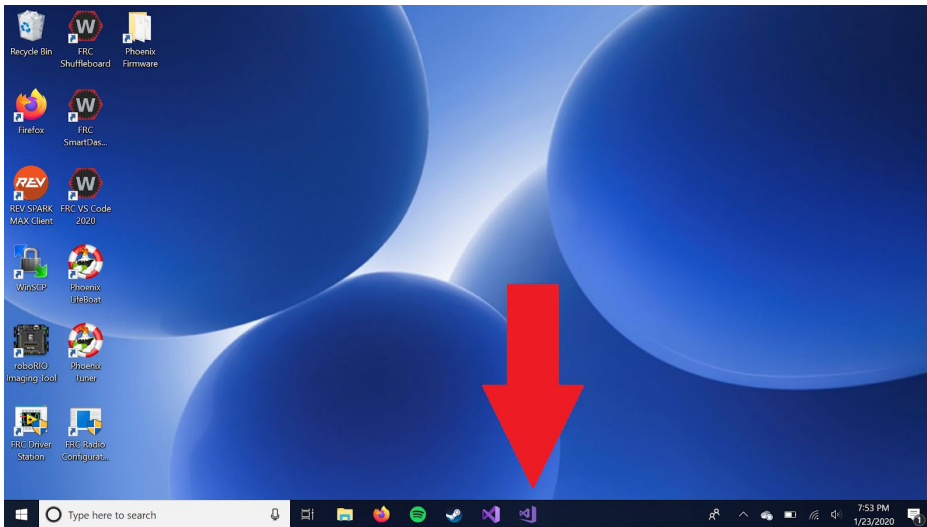
If it is not located on the taskbar for whatever reason, click on the windows button on the taskbar (located on the bottom left corner of your screen, shown below) and type in "Visual Studio 2017". An option for Visual Studio 2017 should appear, and click on that.
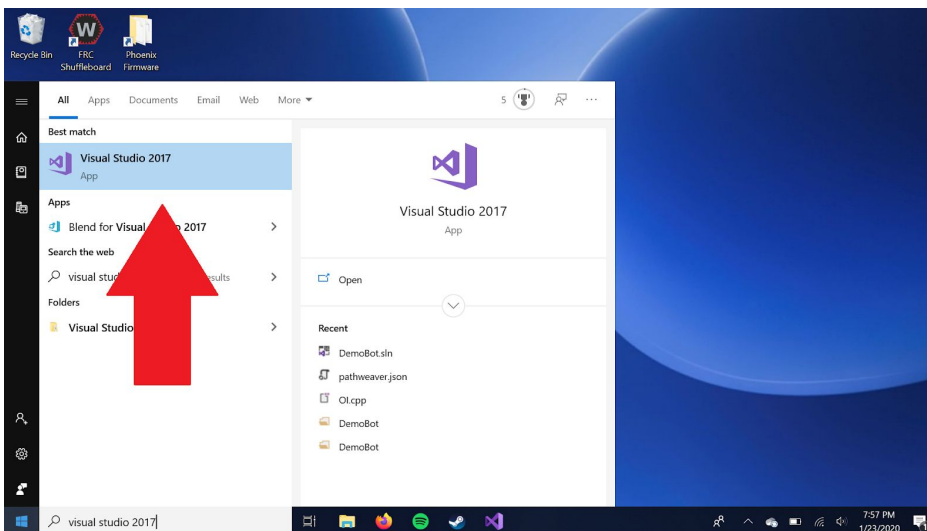
3.) **Open the "DemoBot" project.** Once Visual Studio 2017 is open, the home screen should be the screen that appears. Look under the "Recents" section of the home screen (as shown below), and a project titled "DemoBot.sln" should be the most recent project. You may need to scroll down a bit to see it. Click on that.
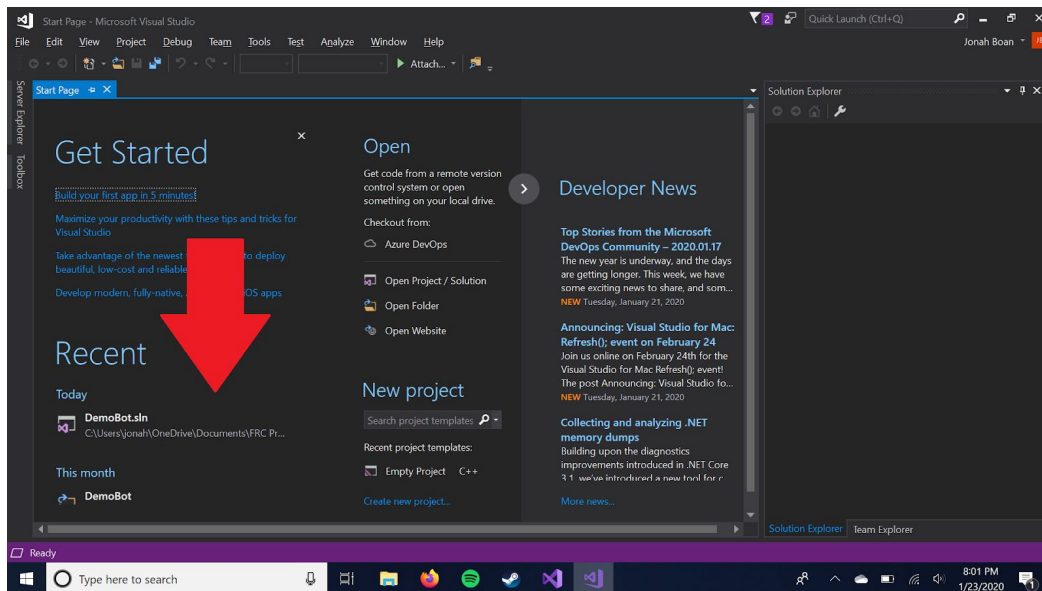

If "DemoBot.sln" was under Recent and you were able to open it, then you may skip to step number 4. If not, continue reading below.
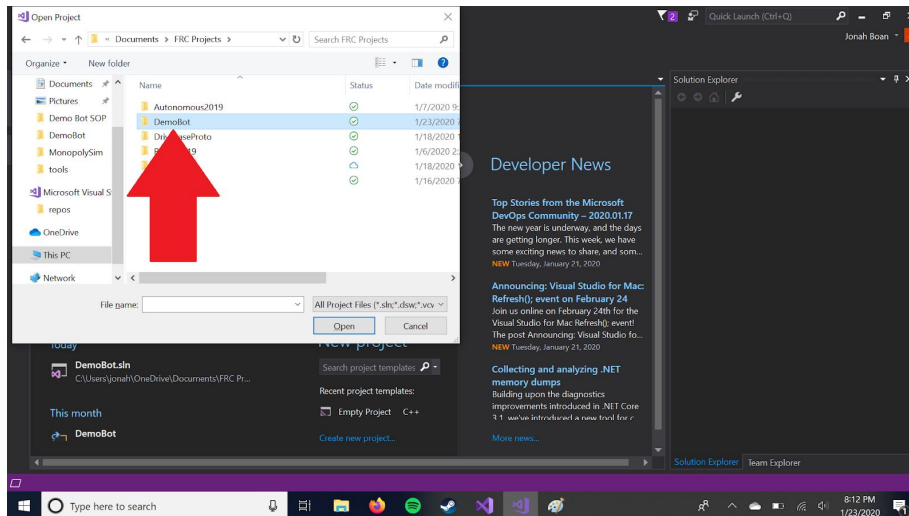
If "DemoBot.sln" is not under the Recent projects, which may often occur, instead Hold down the keys "Ctrl", "Shift", and "O" at the same time. This should open a new window. Navigate (on the left side of the window) to "Documents", and click on it.
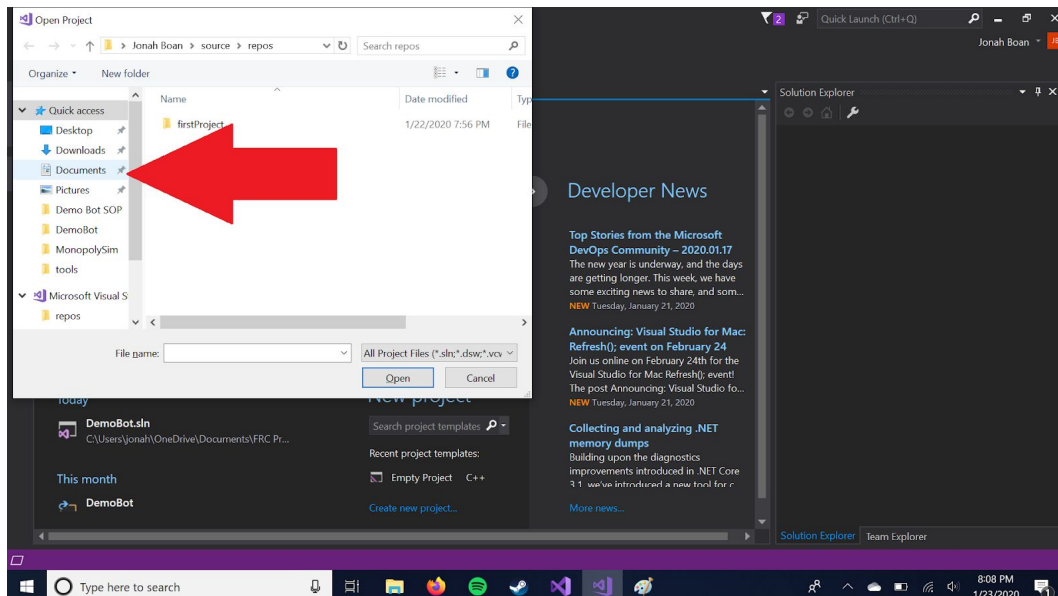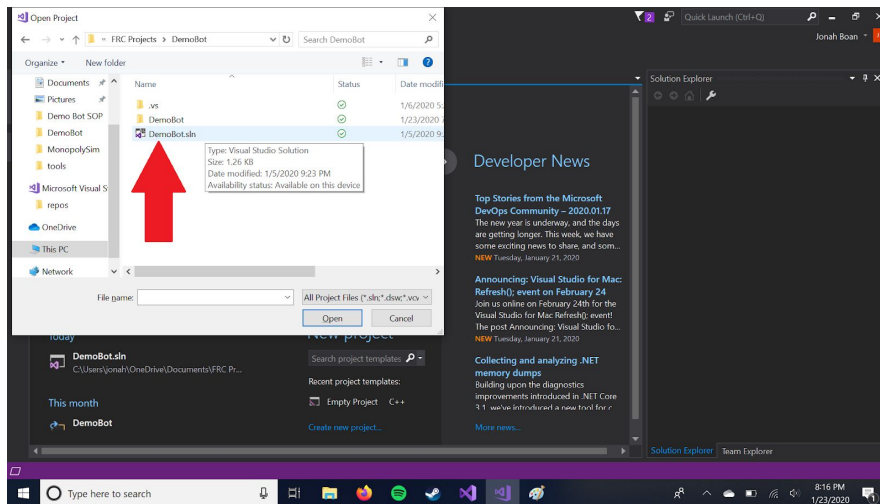
Then Navigate to the folder "FRC Projects", and **double** click on it.
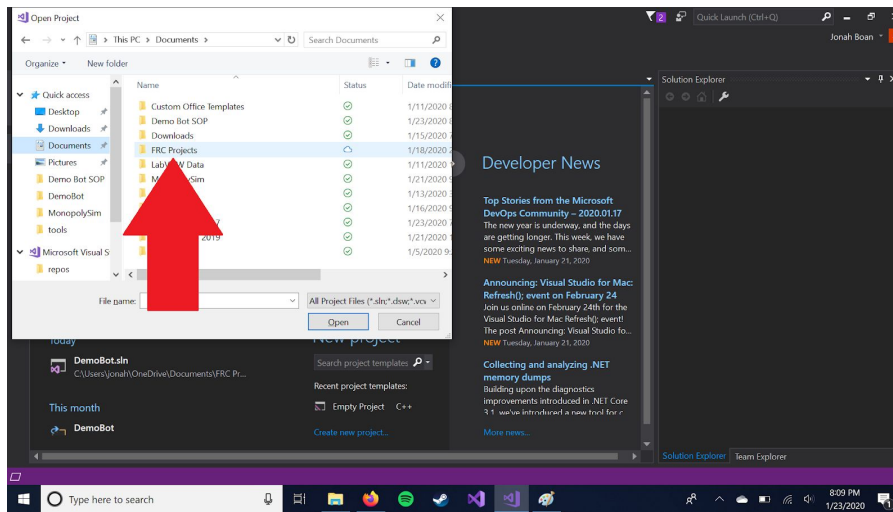
Find the folder "DemoBot", and **double** click on it to open it.

And, lastly, find the file "DemoBot.sln" and **double** click on it to open it.

4.) **Open the Properties tab for the DemoBot project.** Navigate to the right side of the laptop where the files for the DemoBot project are. Look for the "DemoBot" file with the boxed "C#" symbol next to it (as shown below).
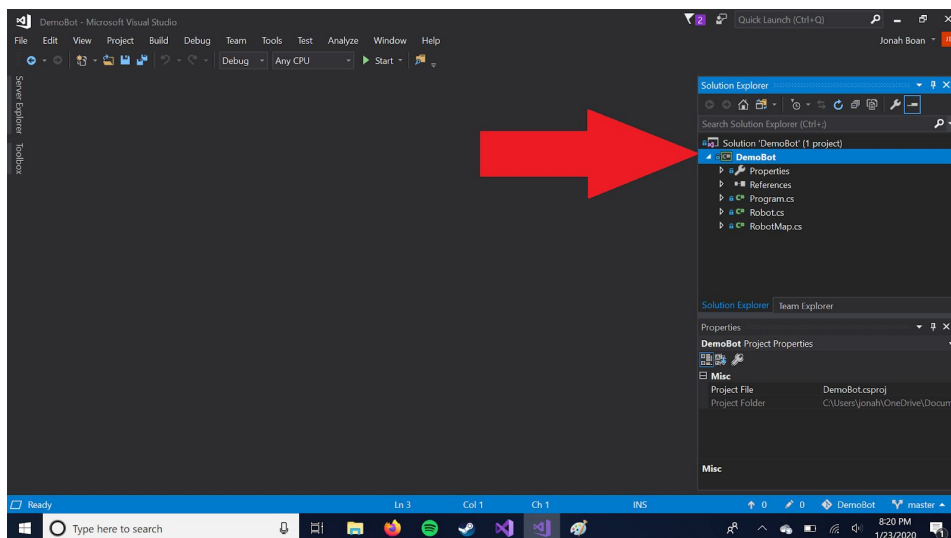
Right click on it, and that should open a dropdown menu. The very last option in the dropdown menu should be "Properties" with the little wrench symbol next to it. Click on that.
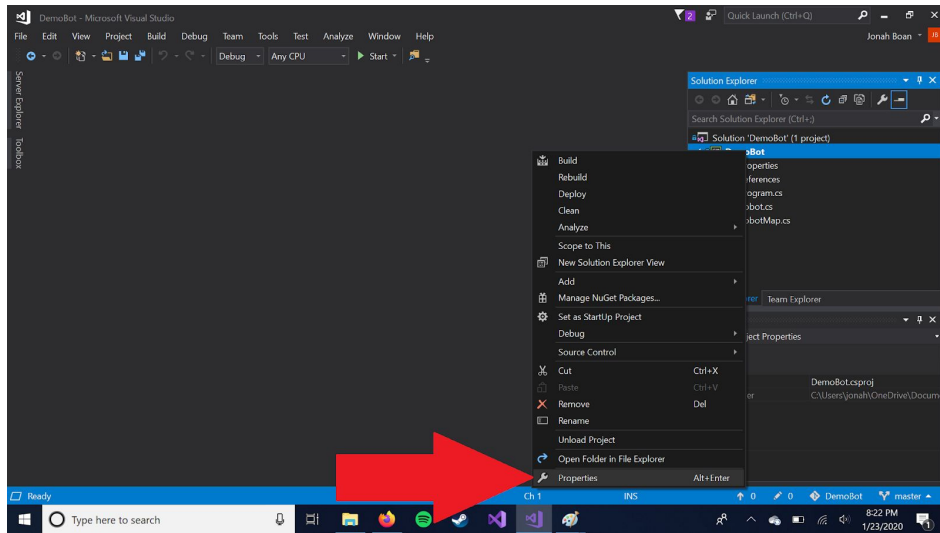
5.) **Connect the Mini USB cable to the Hero Board.** Find the Mini USB cable (that should be in the Demo Box). The Mini USB cable looks like this:
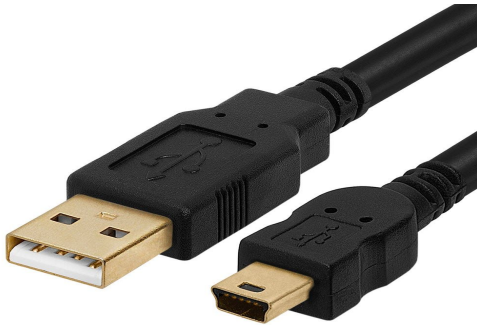

Plug the bigger end (the USB-A end, also the one on the left in the picture above) into the laptop. Plug the smaller end (the Mini USB end, also the one to the right in the picture above) into the Hero Board. The port on the hero board that you plug it into should be located on the side of the hero board, with yellow paint on it.

6.) **Deploy the code.** Once your laptop is connected to the Hero Board, go back to Visual Studio 2017. With the Properties menu open, navigate to the left of the screen where there are several options. Choose the option titled ".NET Micro Framework" if it is not

already selected.
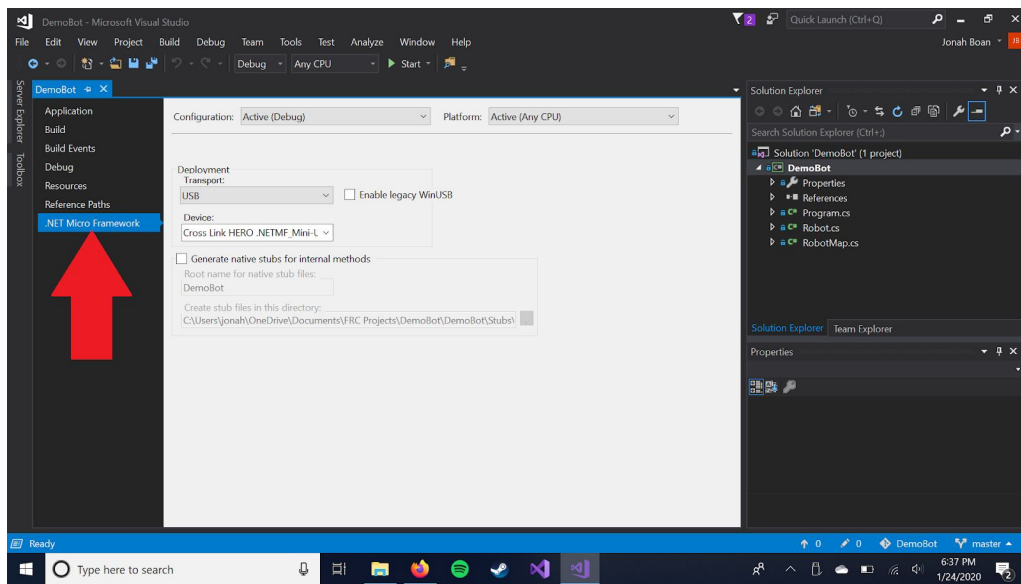
Next, you will need to verify a few options. They should already be selected, if not, click on the dropdown and choose them from the options displayed. The first option is under the "Transport" section. Verify that "USB" is selected. The second option is "Device". Make sure that "Cross Link HERO .NETMF_Mini-USB" is selected.
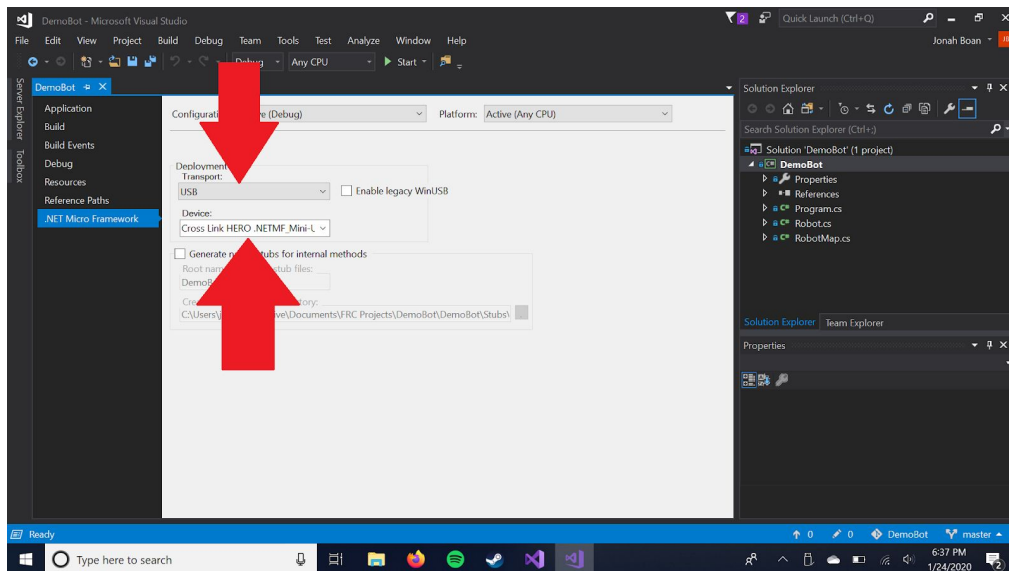
Once you have verified all of this, click the "Start" button at the top of your screen with the green play button to the left of it.
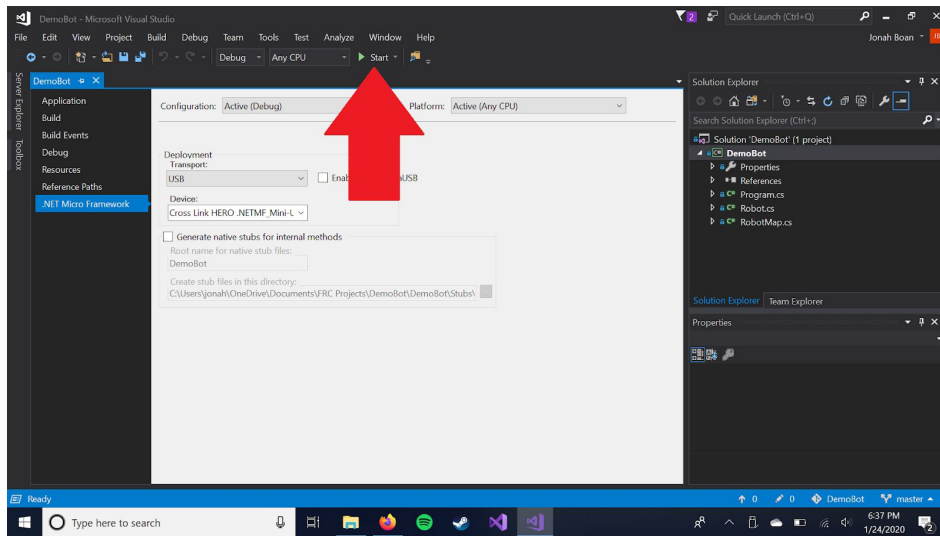
You will know that your code is fully deployed when there is an orange bar at the bottom of your screen, with the word "Ready" at the bottom left corner of your screen where the orange bar is.
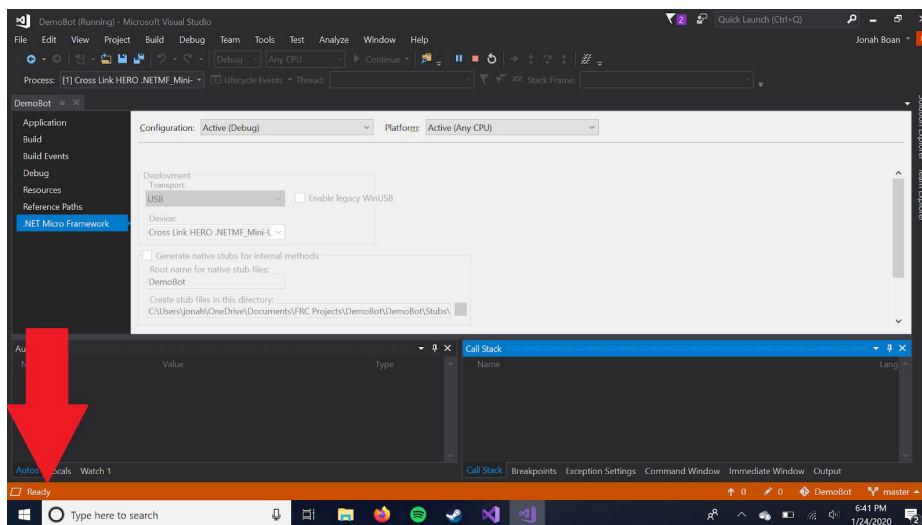
7.) **Unplug, clean up.** Once it says that the robot is ready, you may unplug the cable. **After** you have unplugged the cable, you may press the red "stop" button in the shape of a

square at the top of the screen. You can close Visual Studio 2017 if you would like.