**********Default**********

Programming Pico with Ardiuno IDE
for Nano-RP2040-Connect
Ultra Sonic sensor with PIO

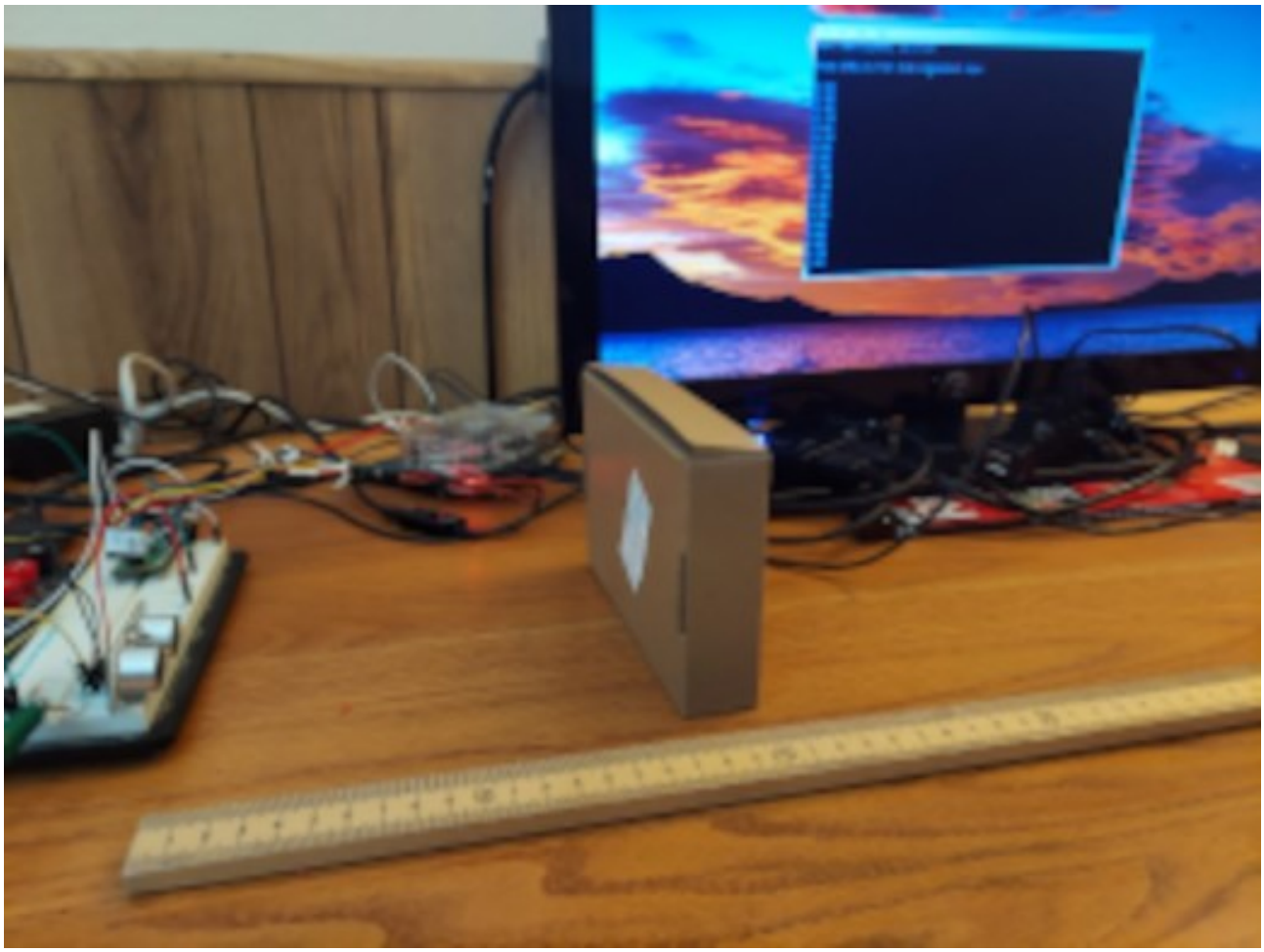
generating trigger
and receiving echo
10/16/22

**********Default**********

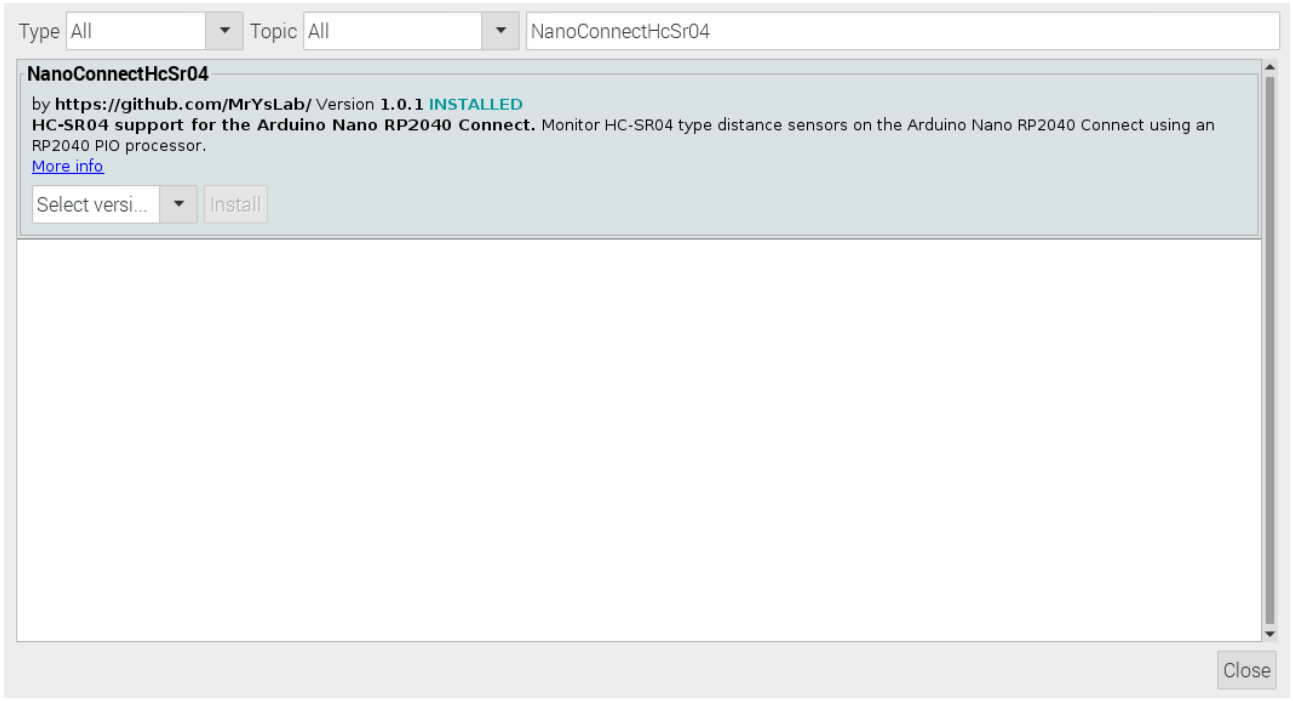
I used 5 volts from the pico to power the HCSR05. This required using 2 10K ohm resistors on the echo signal.

This was the origin of this project.
https://github.com/develone/my-projects-docs/blob/master/HCSR04/ultrasonic-sonar-distance-sensors.pdf

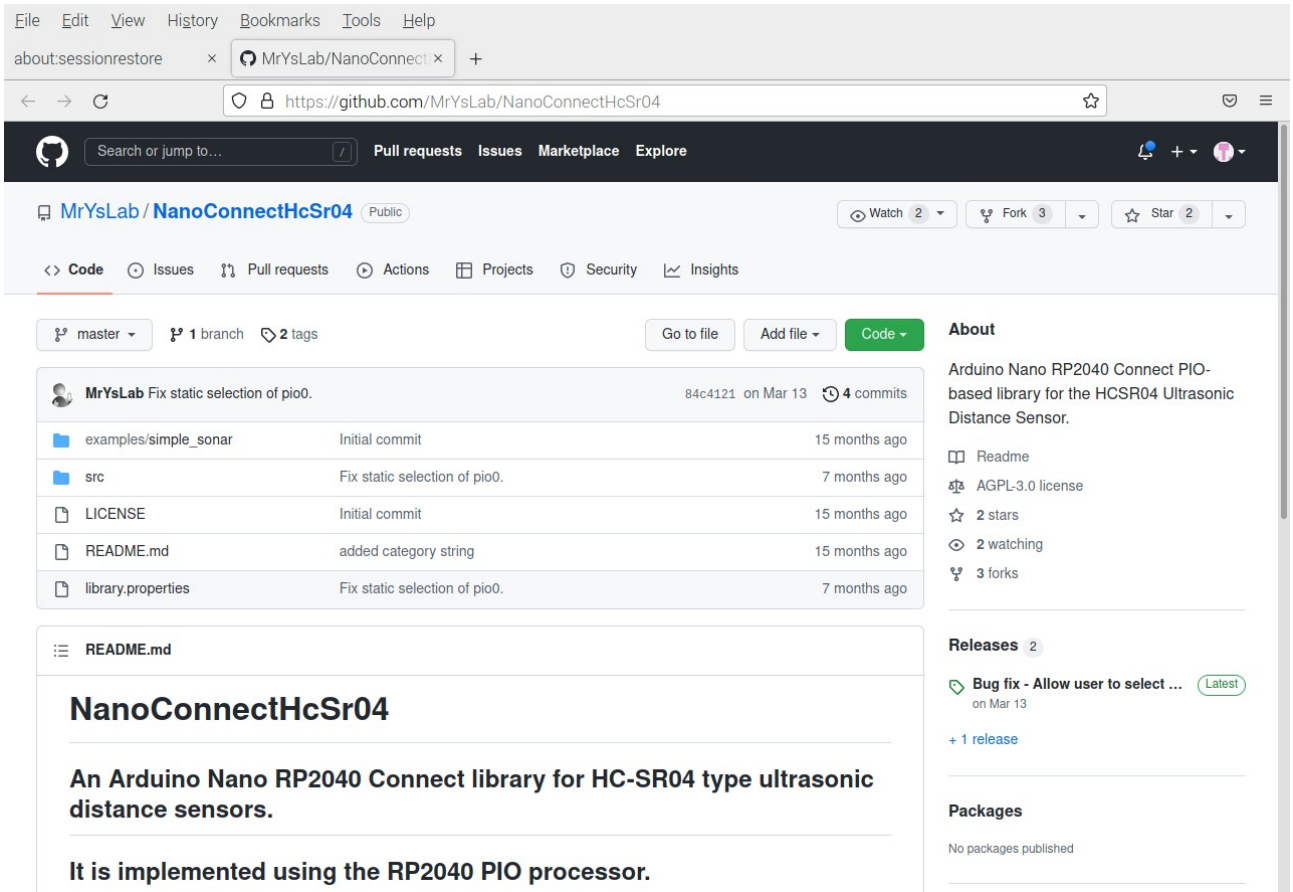
This is sensor sending data over the USB to a serial terminal.



Arduino Library Manager



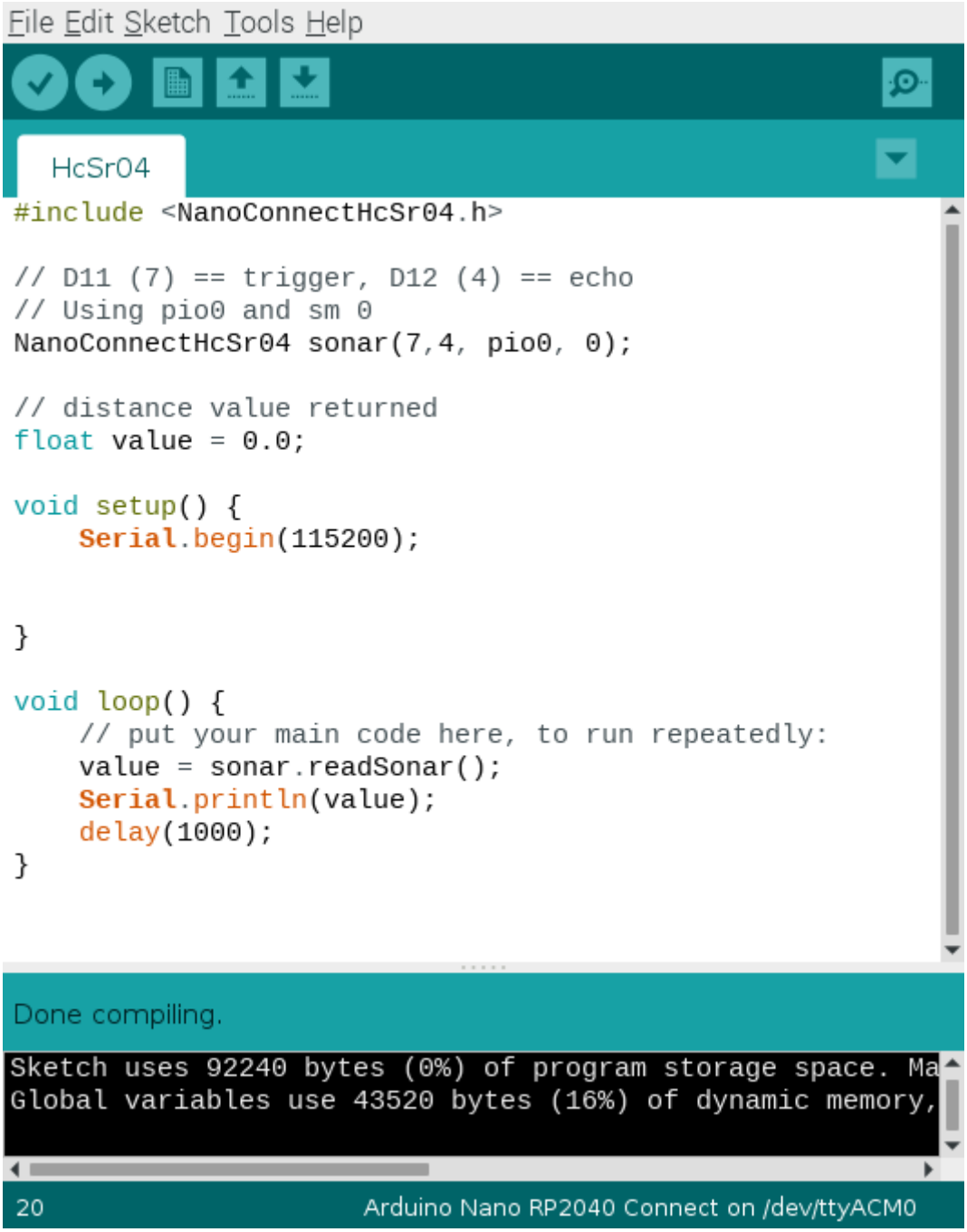
Github



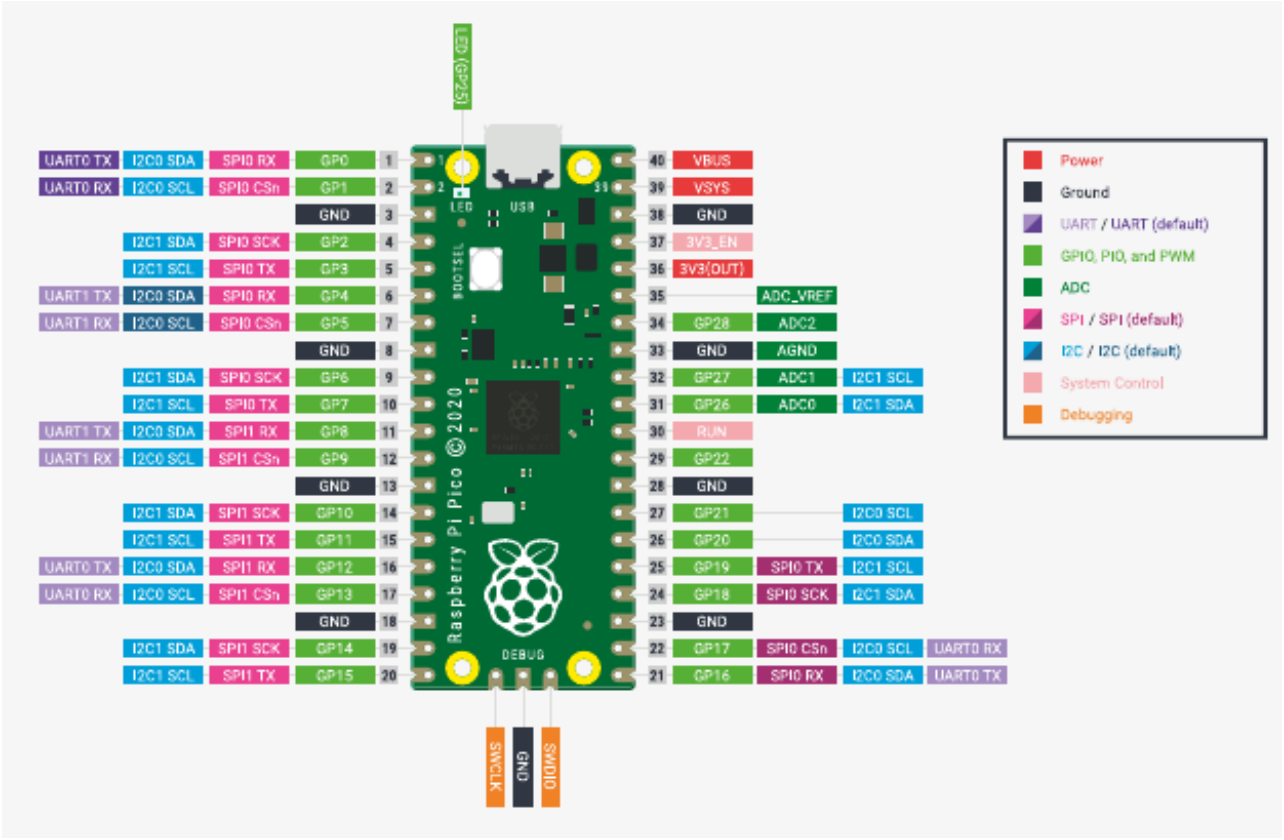
https://github.com/MrYsLab/NanoConnectHcSr04/blob/master/src/NanoConnectHcSr04.pio.h

https://github.com/MrYsLab/NanoConnectHcSr04/blob/master/src/NanoConnectHcSr04.cpp

This sketch uses NanoConnectHcSr04 library



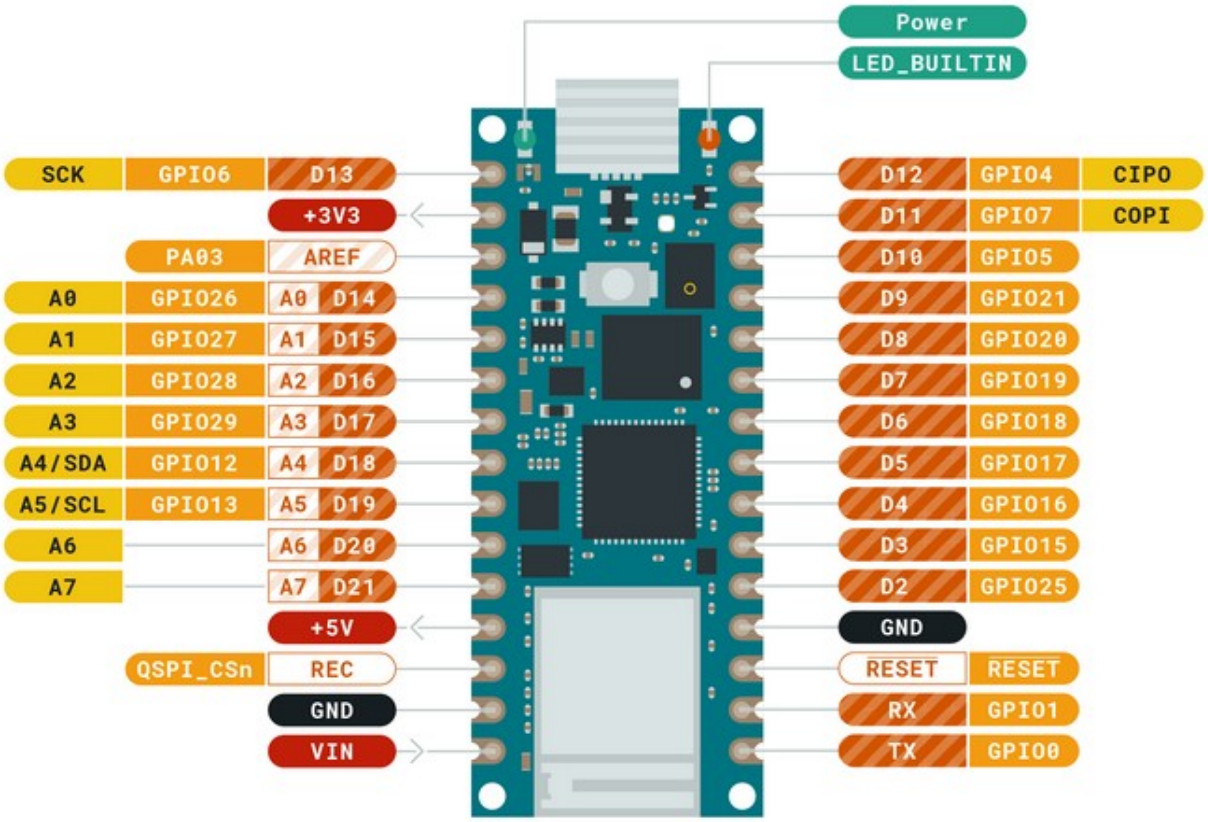
For the pico gpio 7 is pin 10 gpio 4 is pin 6



For the nano-rp2040-connect gpio 7 is pin 12 gpio 4 is pin 11

ARDUINO

ARDUINO NANO RP2040 CONNECT



Ground
Power
LED
Internal Pin
SWD Pin
Other Pin
Digital Pin
Analog Pin
Default
Microcontroller's Port

```
File  Edit  Tabs  Help
38.77
37.90
38.77
38.75
38.30
38.75
38.30
38.30
38.75
38.75
38.77
38.75
38.75
38.75
38.31
38.74
38.31
38.33
38.75
38.77
38.75
38.31
38.74

CTRL-A Z for help | 115200 8N1 | NOR | Minicom 2.8 | VT102 | Offline | ttyACM0
```

Serial Port configuration

```
File  Edit  Tabs  Help
19.10
19.54
19.54
19.5+-----------------------------------------------------------------------+
19.5| A -    Serial Device      : /dev/ttyACM0                              |
19.1| B - Lockfile Location     : /var/lock                                 |
19.5| C -   Callin Program      :                                           |
19.5| D -  Callout Program      :                                           |
19.5| E -    Bps/Par/Bits       : 115200 8N1                                |
19.1| F - Hardware Flow Control : No                                        |
19.5| G - Software Flow Control : No                                        |
19.5| H -     RS485 Enable      : No                                        |
19.5| I -   RS485 Rts On Send   : No                                        |
19.5| J -  RS485 Rts After Send : No                                        |
19.5| K -  RS485 Rx During Tx   : No                                        |
19.5| L -  RS485 Terminate Bus  : No                                        |
19.5| M - RS485 Delay Rts Before: 0                                         |
19.5| N - RS485 Delay Rts After : 0                                         |
19.5|                                                                       |
19.5|    Change which setting?                                              |
19.5+-----------------------------------------------------------------------+
19.54
19.54
```