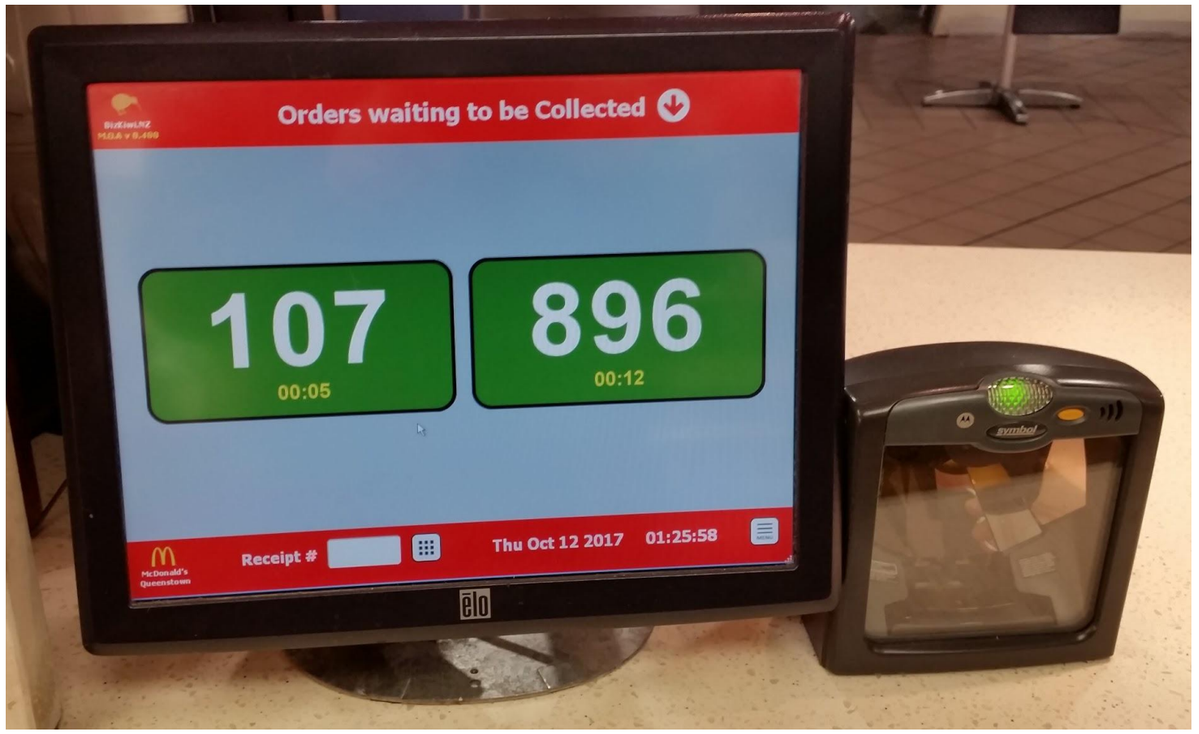
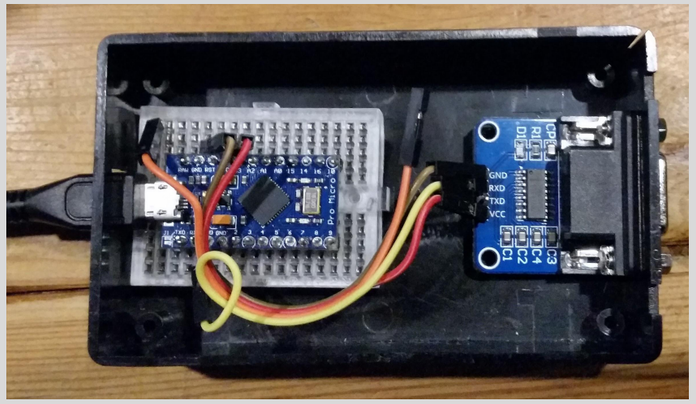
MAKING FAST SERVICE FASTER

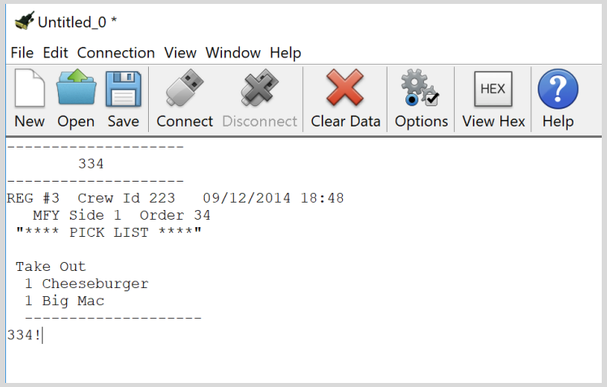


A To make a prototype device some components are needed.



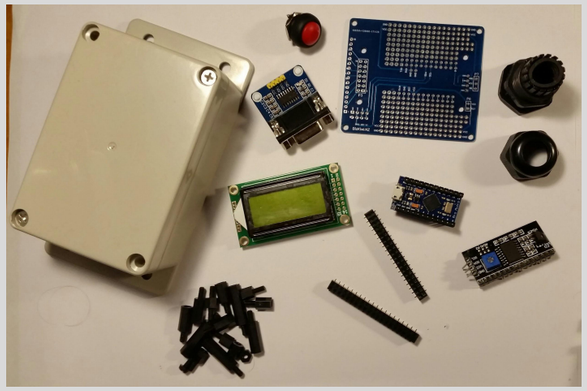
B Make a circuit to capture the data being printed via an RS-232 splitter cable.

C Write a microcontroller program to parse captured data to find the Order Number then send it to a USB connected host PC.



D Write some Pick Slip sample data and debug the program. Success!

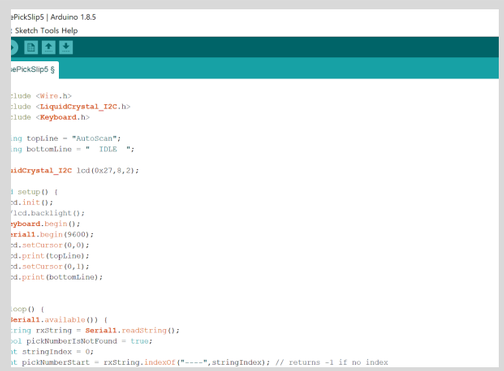
E Next test prototype under controlled conditions in the real world. The device emulates a barcode scanner. Success!



F Now to make a more robust and water resistant unit with visual status indicator.

G Do some fabrication work: cut a window for an LCD plus holes for a reset button and a cable gland.

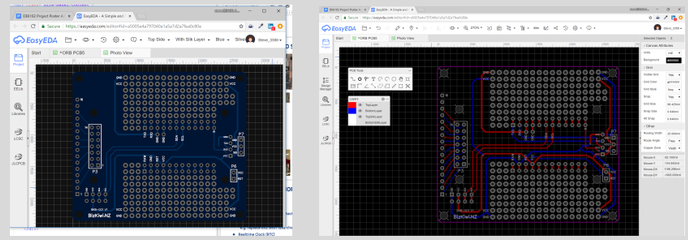
H Connect micro with an I2C converter and LCD module with the I2C converter.



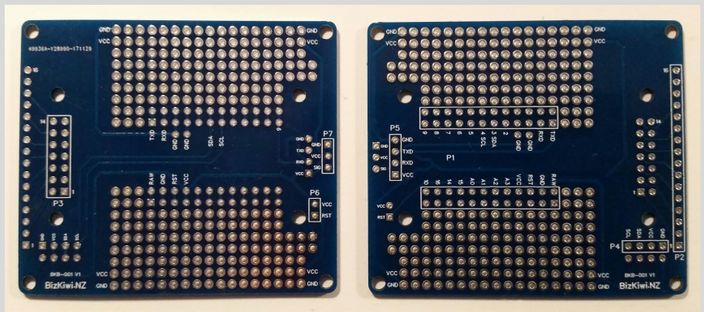
I Modify the program to display Status and the Order Number on LCD module.

J Upload new firmware to micro. Test to ensure Status and Order Number display correctly on LCD. Success!

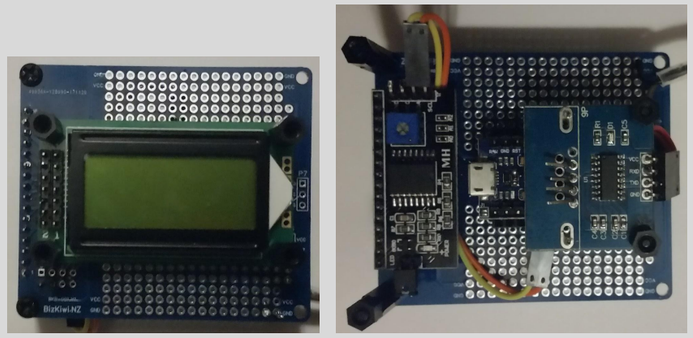
K Look at all those scary wires! What can we do about this?



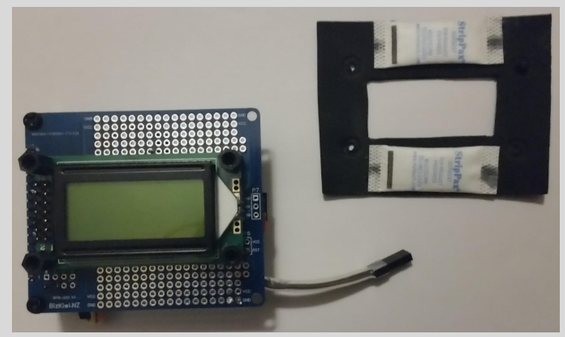
L Design and order a custom adapter PCB for the various modules to enable removal of most of the scary wires.



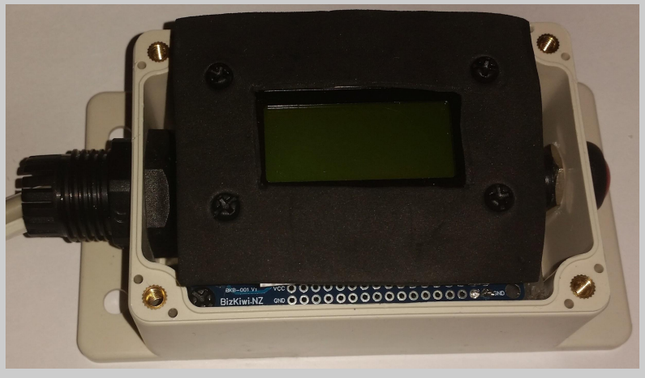
M The new custom adapter boards have arrived so now its time to assemble these by soldering the modules on.



N Here is an assembled device complete with nylon spacers to enable positioning when installed inside the enclosure.



O Cut window in rectangle of black card to frame LCD module nicely. Glue on some silica gel packs to absorb moisture.

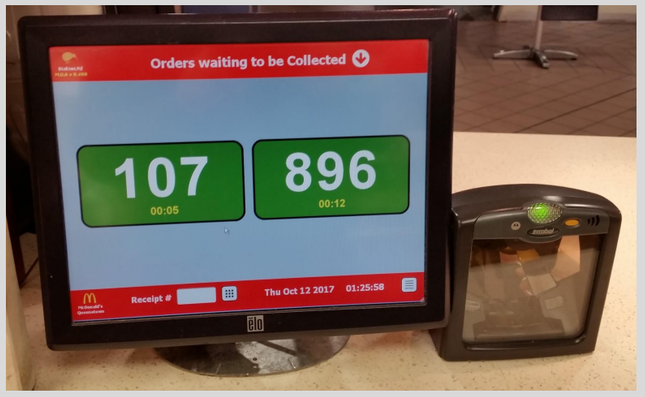


P Attach the LCD frame to the assembly and position the unit inside the prepared enclosure.

Q Ensure the LCD is positioned correctly and fasten the enclosure screws tightly. Screw on the outer cable gland housing.

R Test the assembled device over and over. Make a second unit as a backup device.

S Install new device in Restaurant and test again. Order Numbers are read from the printer data. Success!



T Pick Slips still print to attach to orders however now manual barcode scanning is no longer necessary.

U With the new device connected to the Order Ready Board customers now receive their orders ~2-6 seconds faster!