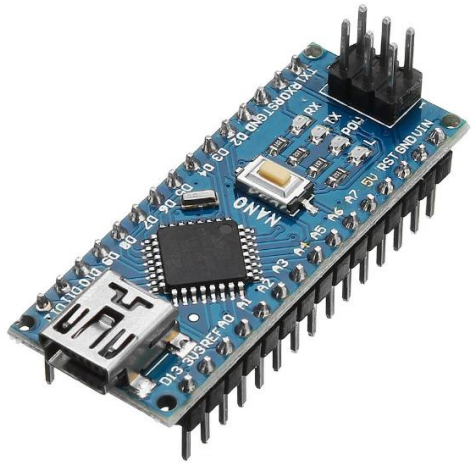
Arduino Nano
(you can find information about this device easily)

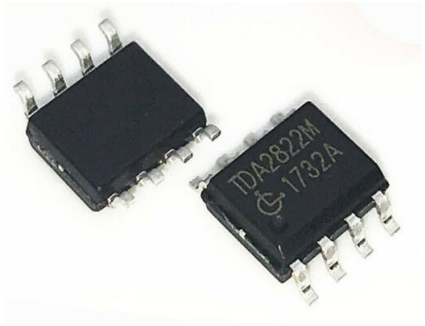


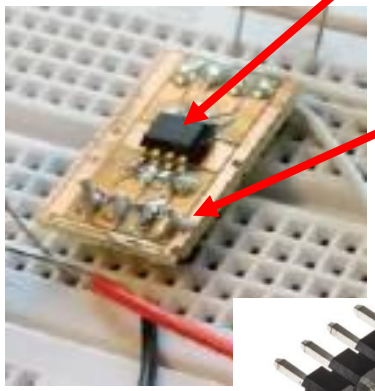
1602 LCD display

16 characters
2 lines

Spec:
https://www.amazon.co.uk/AZDelivery-HD44780-Display-Characters-including/dp/B08216LXVQ

TDA2822 amplifier
(Surface mount device)

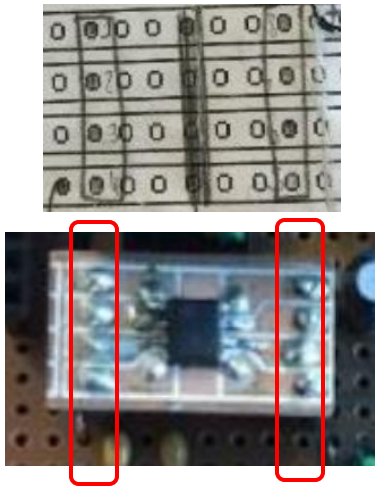




TDA2822
(to mount on a breakout board for easy handling)

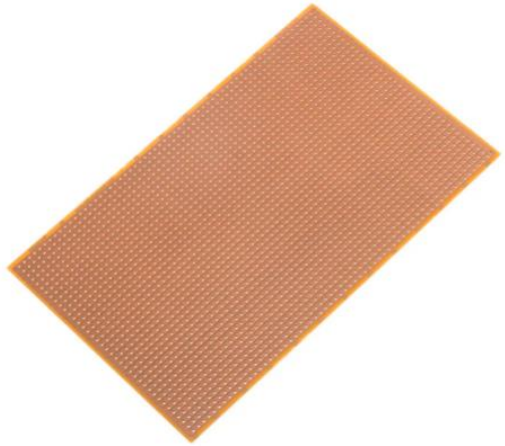
Breakout board
(to be given, you need to do the soldering work)

4-pin straight pin header
(to be given to solder on each side of the breakout board)



Top view
& design

Veroboard (Single-sided Stripboard)
It should be large enough for your project. You can cut to the size you want. If you prefer to use dotted veroboard instead, please check with lab officer.



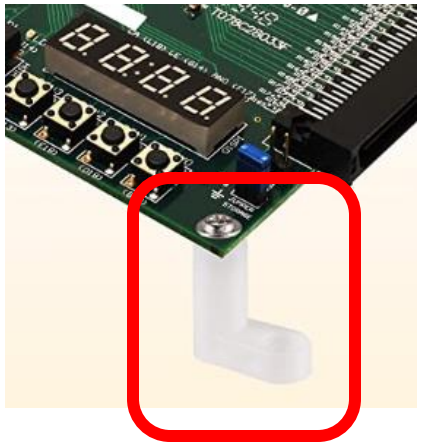
Spec:
https://uk.rs-online.com/web/p/stripboards/2065841/

KY-040
Rotary
Encoder

Spec:
https://www.amazon.co.uk/DollaTek-KY-040-Encoder-Development-Arduino/dp/B07DK7QRLJ

Circuit Board Stands
L-Shape

Spec:
https://www.amazon.co.uk/sourcing-map-Insulated-Mounting-Supporting/dp/B09DYJ1D4B
Please request



FM chip

Spec:
https://www.mouser.co.uk/ProductDetail/SparkFun/BOB-11083?qs=%2Fha2pyFaduiZ6ImKDc9S2jZ%252BcGQNm9pt5o2YGpB7np9Dxa5MykFLE24m4Om7APz1%252BfH4t6St9gU%3D

9V Battery & cap

Mini FM Antenna with 3.5mm Plug

Spec: https://www.amazon.co.uk/Antenna-Connector-Speaker-Receiver-Household/dp/B096MC56S3

3.5mm audio socket (panel mount)

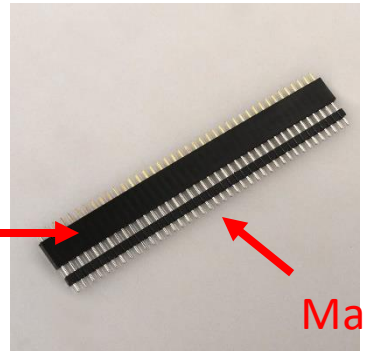
Note: Available in the lab (self service). **Use 1 socket** for both audio & antenna, you need to find out how to wire it to serve both purposes

Speaker (1W 8 Ohm)

Spec: https://uk.rs-online.com/web/p/speaker-drivers/6284715

Note: **use 1 speaker** (either left or right channel), as it can be difficult to fit 2 speakers. Please request if you really want 2 speakers & you must deliver.

2.54mm Pin Headers (male & female)



Spec: https://www.amazon.co.uk/Headers-Breakaway-Connector-Arduino-Prototype/dp/B07CC4V9ZY

Note: Please request the amount you need based on your design.

ON/OFF Switch (panel mount)

Image Not Available

Note: Available in the lab (self service)

Push buttons (panel mount)

Image Not Available

Note: Available in the lab (self service)

Screws & Nuts

Image Not Available

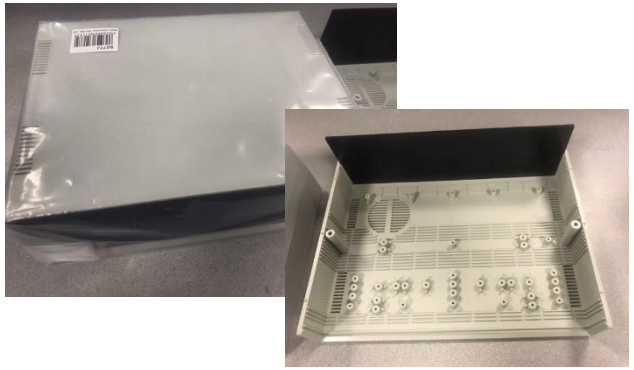
Note: Available in the lab (self service)

Enclosure Options

DIY using acrylic sheet

Plastic box

(Front panel = 75mmx245mm)

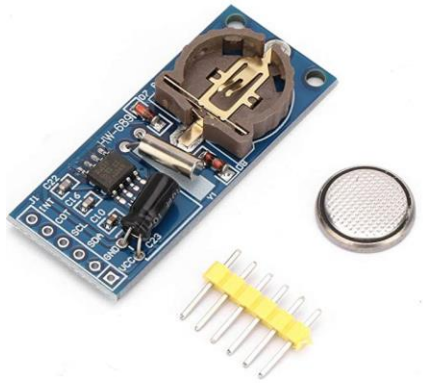


3D printed enclosure

Please ask John

Note: Available in the lab. Please ask

PCF8563 Real Time Clock Module



Spec:
https://www.amazon.co.uk/Clock-Module-PCF8563-PCF8563T-Module-Arduino/dp/B091J9RYCH

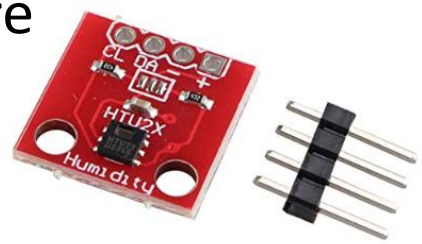
HC-SR04 Distance Sensor

Spec:
https://www.amazon.co.uk/Ultrasonic-Distance-Mounting-Compatible-Rapsberry/dp/B092MB14PH

Infrared Receiver Module

Spec:
https://www.amazon.co.uk/HALJIA-Infrared-Receiver-Controller-Arduino/dp/B01NAVJLDM

HALJIA HTU21D Humidity and Temperature Sensor



Spec:
https://www.amazon.co.uk/HALJIA-Humidity-Temperature-Interface-Compatible/dp/B08BCBV2Y6

USB mini cable (for development)