

# Real-time, on-demand sequencing in the palm of your hand



Nanopore sequencing technology is advancing at an unprecedented pace, promising a future where portable sequencing will be routine in surveillance and many other fields.

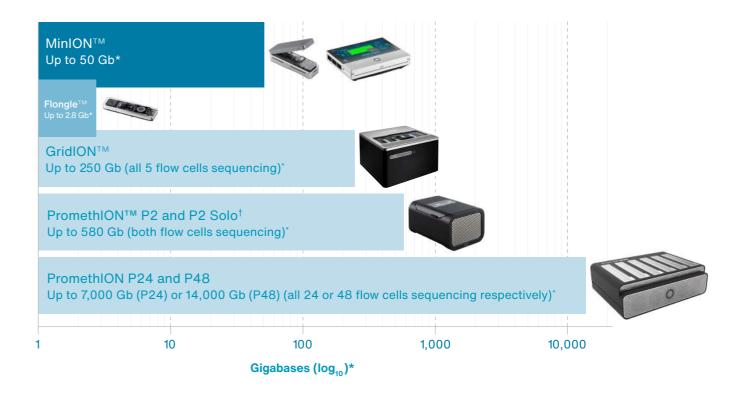
Jana Batovska, La Trobe University

MinION ~5 kb amplicon run basecalling all done at 34.28 Gb, I'll take that :) 77

Dr. John Tyson, University of British Columbia

# Immediate access to gigabases of data

MinION and MinION Mk1C allow you to sequence anything, anywhere — from the bench to the field — with real-time analysis providing immediate access to actionable results. The same DNA and RNA sequencing workflows are available across our products, offering unrestricted read lengths, from short to ultra-long, and complete scalability to suit your needs.



<sup>\*</sup> Theoretical max output (TMO). Assumes system is run for 72 hours (or 16 hours for Flongle) at 420 bases / second.

Actual output varies according to library type, run conditions, etc. TMO noted may not be available for all applications or all chemistries.

<sup>†</sup> PromethION P2 and P2 Solo devices are currently available for preorder, with Early Access devices expected to ship in 2022.

# All the benefits of real-time nanopore sequencing in a portable, low-cost device



### Any length read

Short to ultra-long reads (>4 Mb) to suit your requirements — complete genomic characterisation; SNVs, SVs, repeats, phasing, and transcript isoform resolution



### High yields

As much as 50 Gb\* data suitable for all applications — from whole genomes and transcriptomes to high-throughput targeted analyses



### Real time

Immediate access to actionable results — from pathogen and antimicrobial resistance identification to fusion transcripts



### **Portable**

Sequence samples at source — combine with VolTRAX<sup>™</sup> for portable sample preparation



### Accessible

Starter Packs from just \$1,000 (MinION) and \$4,900 (MinION Mk1C) — with no capital investment or complex IT infrastructure required



### **Direct**

Study native DNA and RNA, not a copy — eliminate amplification bias and detect base modifications (e.g. methylation)



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# How will you use your MinION?

From the bench to the field, MinION devices are being utilised throughout the world to deliver new insights and actionable, real-time results for a range of applications.













**RNA** sequencing

Whole genome

sequencing

**Targeted** 

sequencing



Metagenomics



**Epigenetics** 







Plant research

**Animal** 

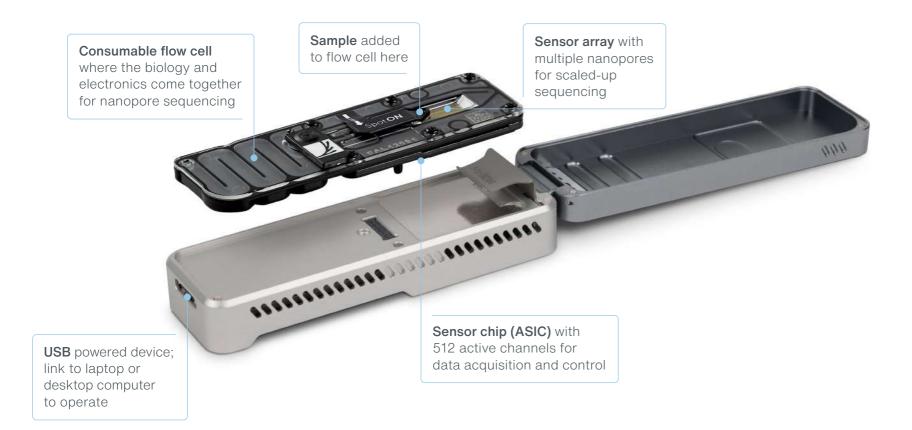
research

Cancer

research

## Your personal, portable DNA and RNA sequencer

Get complete control and creativity over when, where, and how often you sequence. MinION provides the power of nanopore sequencing in an accessible, fully portable device. Weighing only 100 g and running off a laptop, MinION generates tens of gigabases of real-time data in the field or lab.



# Min**ION**

Weight	Size
87 g (103 g with flow cell)	W 105 mm   H 23 mm   D 33 mm

Specification



# Choose your MinION Starter Pack

		Recommended
	Basic	Enhanced
MinION device	1	1
Flow cells	1 4	
Sequencing kits	1	1
Wash kits	1	1
Community Support	Included	Included
	\$1,000	\$3,250
	Buy now	store.nanoporetech.com

A wide range of training and support services are available, for more information visit **store.nanoporetech.com.** 

# Your all-in-one, portable DNA and RNA sequencer

MinION Mk1C provides the power of nanopore sequencing in a fully portable device with integrated real-time basecalling and data analysis, touchscreen operation, and wireless connectivity. Sequence and analyse your samples in the lab or field, and easily standardise assays across multiple sites or collaborators.

High-resolution

Integrated, real-time compute with pre-installed basecalling and analysis software

Data files are written to an **onboard**, **1 TB SSD**; data can then be transferred to your own system

Use **Flongle** for smaller tests and analyses, or **MinION Flow Cells** for tens of gigabases of data

touchscreen display allowing complete device control and easy visualisation of results

Wi-Fi enabled — upload and share your data, wherever you are

Min**ION** Mk1C

opodinoation			
Weight 420 g	<b>Size</b> W 140 mm   H 30 mm   D 114 mr		

Specification



Connected: Ethernet and

# Choose your MinION Mk1C plan

	Basic	Enhanced	CapEx*
MinION Mk1C device	1	1	1
Flow cells	6	12	-
Sequencing kits	1	2	-
Wash kits	1	1	-
Software licence and device warranty <sup>†</sup>	12 months	12 months	12 months
Community Support	Included	Included	Included
* Device purchase. † Extended warranties available.	\$4,900	\$9,559	\$9,300

Buy now store.nanoporetech.com

A wide range of training and support services are available, for more information visit **store.nanoporetech.com**.



MinION Mk1C COVID Starter Pack also available for simple, scalable, and rapid sequencing of SARS-CoV-2 samples.

# A complete and streamlined workflow for rapid access to actionable results



### Prepare

- Streamlined library preps in as little as 10 minutes, with multiplexing options
- Scale according to your needs same chemistry and kits used for Flongle, MinION, GridION, and PromethION
- Automate library preparation using the portable, USB-powered VolTRAX

### Sequence

- Sequence what you need, when and where you need it
- Read lengths determined by your sample and experimental needs
- MinION devices sequence DNA and RNA directly

   meaning no amplification bias and retained modification information (e.g. methylation)
- Run smaller sequencing tests and experiments or cost-effectively check your sample quality using Flongle on MinION

### Analyse

- Real-time results for time-critical applications such as pathogen identification
- User controlled run time stop sequencing when sufficient data generated, wash and reuse flow cell
- Portable data analysis using MinION Mk1C or combine MinION with a laptop
- Output raw signal or basecalled .fastq files for use in custom analysis pipelines

### **Applications include:**

- Rapid metagenomic species identification and antibiotic resistance profiling
- Accurate high-coverage microbial genome assemblies (DNA and RNA)
- Enhanced large genome analysis (e.g. cancer samples) through accurate mapping of structural variation, repetitive regions, and phasing
- Quantify and characterise RNA splice variants, isoforms and fusion transcripts

# Enhance your MinION sequencing workflow...

### **Prepare**

Automated library preparation for nanopore sequencing.

- Small, USB-powered device
- Minimal hands-on time
- Reproducible results

### nanopore.com/products



Adapting MinION devices for smaller, rapid tests and analyses. Delivering as much as 2.8 Gb\* data, Flongle is suitable for:

- Smaller samples (e.g. targeted regions and smaller genomes)
- Rapid sample ID or quality checking
- Low-cost regular testing

nanopore.com/products

### **Analyse**

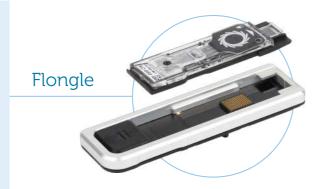
Providing straightforward, best-practice data analysis workflows and interactive tutorials — from basic quality control to genome assembly.

- Minimal installation requirements
- Interactive tutorials for your data
- Fully customisable

### nanopore.com/analyse

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# EPI2ME and EPI2ME Labs offer a rapidly growing number of streamlined, best practice

...with end-to-end analysis workflows

### EPI2ME:

analysis pipelines.

Simple, real-time data analysis workflows accessed through the cloud or locally using MinION Mk1C<sup>†</sup>.

### **EPI2ME Labs:**

Interactive tutorials and workflows allowing you to explore your data and develop your bioinformatics skills

### Workflows include:

- SARS-CoV-2 analysis
- Metagenomic species ID
- Antimicrobial resistance profiling
- 16S-based microbial ID
- Structural variation analysis
- Plasmid sequencing
- Variant calling
- Clone validation
- Reference alignment

<sup>&</sup>lt;sup>†</sup> Local EPI2ME workflows on MinION Mk1C coming soon.

