Terabases of long-read sequence data, analysed in real time
PromethION offers high-capacity benchtop sequencing that enables the delivery of sub-$1000 human genomes

PromethION 24 (P24) and PromethION 48 (P48) are designed to run up to 24 and 48 flow cells respectively. Each flow cell can be run independently, providing flexible, on-demand sequencing to suit your specific experimental requirements. PromethION Flow Cells deliver approximately six times the sequencing capacity of MinION Flow Cells.

The PromethION is a real game changer. Combining ultra-long reads with high sequence output for the production of contiguous, high-quality reference genomes. Using this platform, we sequenced the 2.56 Gb lettuce genome at >100X coverage using just a few flow cells.

Dr. Alexander Wittenberg
KeyGene, PromethION service provider – May 2018
PromethION gives you control to start sequencing individual samples as and when you wish, generating data and providing immediate insight — on demand

**Prepare**
- Straightforward and streamlined library preps — in as little as 10 minutes
- Multiplex your samples with barcoding kits
- Same chemistry and kits used for Flongle, MinION, GridION X5 and PromethION — check your sample quality on a MinION or Flongle, before running the experiment on the PromethION

**Sequence**
- Define your experiment to suit you — use a single flow cell or group multiple flow cells to obtain more data
- Start your experiment when you choose — no need to wait to fill the device
- Control each individual flow cell independently — run as many or as few as you wish at the same time, or add more whilst others are running
- Read lengths are determined by your sample and experimental needs — no need to fragment your sample, therefore making assembly, structural variation detection and phasing easier
- PromethION sequences DNA and RNA directly — meaning no amplification bias and retained modification information

**Analyse**
- PromethION data acquisition unit contains a state-of-the-art basecall accelerator which gives you upwards of 200 (P24) or 400 (P48) TFLOPS of computing power
- Use one of our intuitive EPI2ME workflows — analyses such as species identification and human genome alignment can begin in real time
- Choose to output the raw signal or basecalled .fastq files, so you can use your own custom analysis pipelines
Choose your PromethION plan

Cost-effective annual flow cell packs and smaller top-up packs are available to suit your project needs — with flow cells from $2,000 – $625.

Service provider certification is also available for the PromethION.

<table>
<thead>
<tr>
<th>PromethION 24</th>
<th>PromethION 48</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starter Pack</strong></td>
<td><strong>CapEx</strong></td>
</tr>
<tr>
<td>1</td>
<td>1*</td>
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<td>60</td>
<td>60</td>
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<td>14</td>
<td>14</td>
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<td>4 months</td>
<td>3 years</td>
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<td>Included</td>
<td>Included</td>
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<td>Included</td>
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</table>

*Device purchase.
†To be shipped within 4 months of device delivery according to user’s schedule.
‡Subsequent years charged at $20,000 per annum.

$165,000 $297,000 $285,000 $595,000

[Store Nanopore Tech](store.nanoporetech.com)
PromethION on-site set-up — everything you need to start

On-site Assurance and Familiarisation is included with all PromethION purchase plans — ensuring the set-up and configuration of your system is optimal. An Oxford Nanopore Technical Specialist will work with you to fully test the PromethION device after installation.

Pre-visit remote consultation

• PromethION installation assistance
• PromethION configuration assistance

On-site Assurance and Familiarisation

• Installation and configuration review
• PromethION device and software introduction
• Loading PromethION Flow Cells
• Sequencing of one control sample with consumables provided by the customer
• Sequencing of one customer sample with consumables provided by the customer
• Introduction to data structure and basecalling

PromethION Advanced Training available when you need it

PromethION Advanced Training is a comprehensive, personalised course for up to four attendees. Two Oxford Nanopore experts will provide in-depth technology training with practical hands-on experience, running up to seven of your own samples. The training will provide participants with the tools to successfully complete nanopore sequencing experiments on PromethION devices.

PromethION Advanced Training

<table>
<thead>
<tr>
<th>Location</th>
<th>Oxford Nanopore labs or your site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>2 days</td>
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<tr>
<td>Introduction to nanopore technology</td>
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<tr>
<td>Experimental planning and sample QC</td>
<td>✓</td>
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<tr>
<td>PromethION Flow Cell loading practical</td>
<td>✓</td>
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<tr>
<td>Control experiment</td>
<td>✓</td>
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<tr>
<td>Oxford Nanopore software</td>
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<tr>
<td>User-provided samples processed</td>
<td>Up to 7 samples</td>
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<tr>
<td>Flow cells included</td>
<td>8</td>
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<tr>
<td>Sequencing kits included*</td>
<td>2</td>
</tr>
<tr>
<td>Data analysis</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Third party reagents are provided only when training at Oxford Nanopore labs.

$19,998

Buy now store.nanoporetech.com/training
Customer network, data storage and power requirements for PromethION operation

**PromethION connection to customer network**

- 2 x 10 Gbps fibre or copper ports

**PromethION power requirements**

- 3 x power supplies:
  - 1 x 1200 W for sequencing unit
  - 2 x 2 kW for data acquisition unit

**Real time and offline storage**

Two types of customer data storage is recommended:

1. **Real time**: high-speed data streaming to local infrastructure
2. **Local**: offline long-term data storage

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**Product specifications**

**Sequencing unit**

- Up to 24 (P24) or 48 (P48) individually addressable flow cells
- Up to 64 hour run time
- Each flow cell has approximately six times the sequencing capacity of a MinION Flow Cell
- 72,000 (P24) or 144,000 (P48) channels across device can be sequencing at once
- As much as 200 Gb per flow cell

**Weight:** 28 kg  
**Dimensions:** W 590 mm, H 190 mm, D 430 mm

**Data acquisition unit**

- 2 kW max power consumption
- 32 TB (P24) or 64 TB (P48) SSD data storage
- 384 GB RAM
- Latest generation CPU for OS and orchestration
- State-of-the-art basecall accelerators
- Preloaded with Linux OS, PromethION OS and MinKNOW
- Dual 10 Gbps fibre or ethernet connection (20 Gbps bandwidth)

**Weight:** 25 kg  
**Dimensions:** W 178 mm, H 440 mm, D 470 mm

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**More information**  
nanoporetech.com/promethion-requirements.pdf  
Buy now  
store.nanoporetech.com