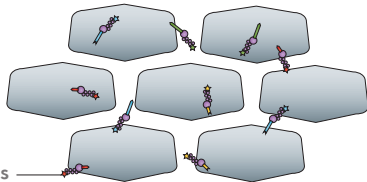


A**Pacific Biosciences****SMRTbell template**

Two hairpin adapters allow continuous circular sequencing

**ZMW wells**

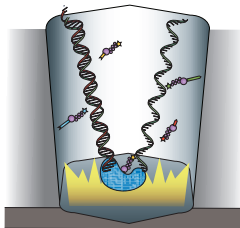
Sites where sequencing takes place

**Labelled nucleotides**

All four dNTPs are labelled and available for incorporation

Modified polymerase

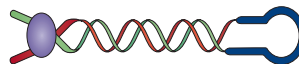
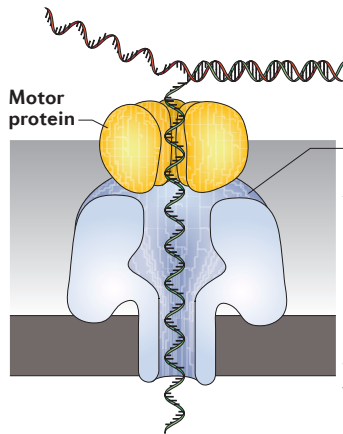
As a nucleotide is incorporated by the polymerase, a camera records the emitted light

**PacBio output**

A camera records the changing colours from all ZMWs; each colour change corresponds to one base

**B****Oxford Nanopore Technologies****Leader-Hairpin template**

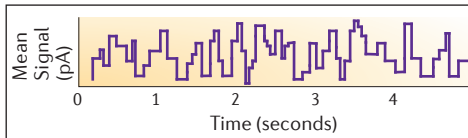
The leader sequence interacts with the pore and a motor protein to direct DNA, a hairpin allows for bidirectional sequencing

**Motor protein****Alpha-hemolysin**

A large biological pore capable of sensing DNA

Current

Passes through the pore and is modulated as DNA passes through

**ONT output (squiggles)**

Each current shift as DNA translocates through the pore corresponds to a particular k-mer