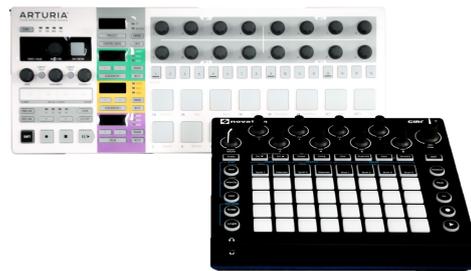




<https://www.youtube.com/watch?v=aXTT8jUhoAg>

What is a sequencer?

- A sequencer is a device with the ability to **record, edit** or **play back audio**
- It can do this in various ways such as using **MIDI, CV/G** (Control Voltage/Gate) **OSC** and **USB**
- Sequencers allow you to program various combinations of **notes, patterns** and **effects** that can be sent elsewhere



Messages from sequencers can be used to control things like DAWs or even hardware synths

The ability to program things like patterns and melodies allows for more experimentation when it comes to things like live mixing, dynamics and performing with other instruments

The main parameters a sequencer will let you determine are the length of your pattern and the pitch of the notes (if you are using it to play a melody/bassline)

You will also usually be able to determine other parameters such as note length, velocity, rests/ties, effects and more

Step Sequencing

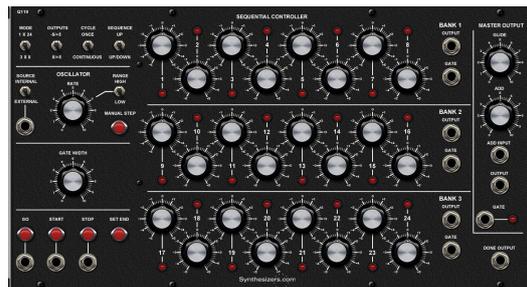
- Step sequencing works by entering notes one at a time into a **sequencer's memory** using a **grid/series of buttons**
- Step sequencing was used extensively during the 70s
 - Prominent feature of the **synth pop** genre
- Sequencing is now an abundantly used technique in pop music



(listen to Donna Summer – I Feel Love, Robert Miles - Children)
Demo

Analogue Sequencers

- Early sequencers would send **CV/Gate signals** to trigger notes on a synthesiser
- The band *Ultravox* famously modified their set up so that they could control their analogue synths using **drum machines**

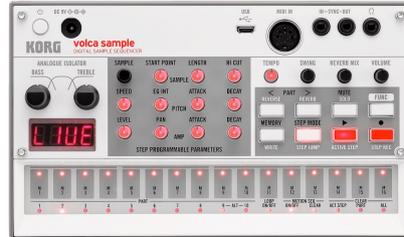


(listen to Ultravox – Vienna)

- A voltage would be sent from the sequencer to control the opening and closing of gates to play notes on a synth module

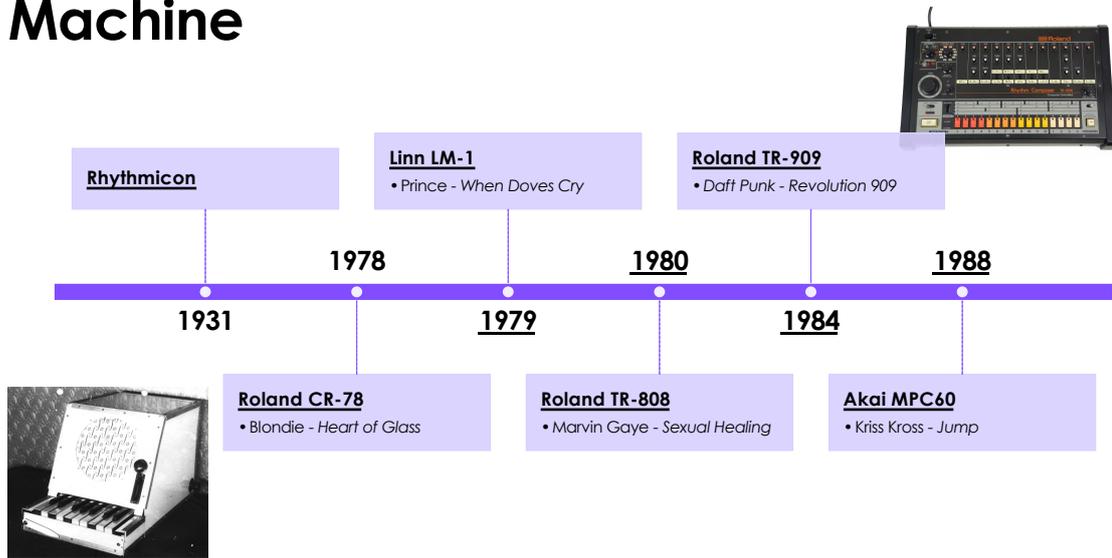
Digital Sequencers

- **Digitally** controlled analogue sequencers were developed in the late 70s and combined **voltage control** with **computer memory**
- These sequencers were also combined with synths and samplers



The Jupiter 4 synth was one of the first synthesisers to include a built-in sequencer

The History & Development of the Drum Machine



Drum machines use sequencing technology to create rhythmic patterns
Early drum machines relied on pre-set patterns
The first programmable drum machines were introduced in the 70s