1. Subject evaluation

2. Review QZ2

3. Synthesizer history
   - Pipe organ
   - Thaddeus Cahill’s *Thelharmonium* or *Dynamophone* (1897)
   - Lev Termen’s *Theremin* (1928)
   - Friedrich Trautwein’s *Trautonium* (1929)
   - Oskar Sala - *Mixtur-Trautonium* (1950s; Hitchcock’s *Birds*)
   - Hugh Le Caine’s *Electronic Sackbut* (1948)
   - RCA Mark II synthesizer (1957)
   - Buchla 100 series (1963)
   - Wendy/Walter Carlos’ *Switched-On Bach* (1968)
   - Joe Paradiso’s (MIT Media Lab) modular synth (1974–88)

4. Modular synthesizer theory
   - Voltage-controlled oscillators (VCO)
   - Voltage-controlled amplifier (VCA)
   - Low-frequency oscillator (LFO): vibrato, tremolo
   - Voltage-controlled filters (VCF)
   - Envelope generator (ADSR)
   - Sequencer
5  Resynthesizing Eurythmics’ *Sweet Dreams*

5.1  Sequencer
- Which MIDI pitches?
- How many voices?
- How many steps?
- Which tempo?

5.2  Oscillator
- Which instruments?
- Which waveforms?

5.3  Envelope generator
- How long are attack and decay periods?