Hello, thanks for purchasing the AtomoSynth Mochika X5 analog synthesizer and sequencer. This is a quick start guide of the sequencer section.
Let's create, save and load a basic sequence.

Basic operation: create save and load a pattern.

A. Create a pattern.
1. When you turn on the unit it starts an empty init pattern.
2. Push the STEPS encoder (encoder 1), and the display will show "Step On/Off".
3. Now you can turn on individual steps by moving each encoder clockwise, and turn them off by moving each encoder counter-clockwise, the corresponding LED will light or go dark accordingly.
4. To access steps 1 to 8, push the 1-8 button, and to access steps 9 to 16 push the 9-16 button.
5. To play the pattern push the PLAY/STOP button and you can listen to the sequence.
6. To see the steps pitches, push the PITCH encoder (encoder 2), and the display will show "Pitch/CV1".
7. Now if you turn each encoder just one detent, the display will show the step number and the actual pitch for that step without changing it.
8. To change the pitch of each step, move the corresponding encoder more than one detent, and the display will show the change in pitch value for that step, and the change will remain.
9. Now push the PLAY/STOP button and you will listen to the sequence with the pitches you just programmed.

B. Save a pattern.
1. To save a pattern, push the OK/*Settings* button, and the display will show "Settings".
2. Move the *SAVE* encoder (encoder 6) and the display will show you the pattern number in which your sequence will be saved, choose the pattern number you want and then push the OK/*Settings* button to confirm.
3. To cancel a Save operation, before you push OK to confirm, just push any other button, for example, the STEPS encoder.

C. Load a pattern.
1. To see which pattern is loaded, push the OK/*Settings* button, and move the *PATTERN* encoder (encoder 7) just one detent and the display will show you the pattern that is loaded without changing it.
2. To load a saved pattern, push the OK/*Settings* button, and move the *PATTERN* encoder (encoder 7) more than one detent, the display will show pattern numbers, set the desired

pattern number, and then push the OK/*Settings* button to confirm. The pattern will load immediately.

3. To cancel a Load operation, before you push OK to confirm, just push any other button, for example, the STEPS encoder.

Per-step parameters setting

The Mochika X5 can store 8 parameters for each step including step on/off, pitch, two extra voltages CV2 and CV3 used to control other analog modules like filters, also gate time, retrigger, repeat, and probability for each step. Let's change some of the parameters for each step.

D. Change the gate time.
1. To see the gate time of each step, push the GATE encoder (encoder 5), and the display will show "Gate time".
2. Turn each encoder just one detent, the display will show the step number and the actual gate time for that step without changing it. (default gate time is 50% of the step time).
3. To change the gate time of each step, move the corresponding encoder more than one detent, and the display will show the change of the gate time percentage value for that step, and the change will remain.
4. If you set the gate time to "tie", the gate will remain on all the step time and will be tied to the next step.
5. If you set the gate time to "slide", the gate will remain on all the step time and the pitch will slide to the pitch of the next step.
6. Push the PLAY/STOP button to listen the sequence with the gate times you just programmed.

E. Set a retrigger (ratchet).
1. To see the retrigger number of each step, push the RETRIG encoder (encoder 6), and the display will show "Retrigger".
2. Turn each encoder just one detent, the display will show the step number and the actual retrigger number for that step without changing it. (default retrigger number is 1).
3. Now to change the retrigger number of each step, move the corresponding encoder more than one detent, and the display will show the change of the retrigger number for that step, and the change will remain.
4. Push the PLAY/STOP button and you will listen to the sequence with the retrigger numbers you just programmed.

F. Set repetitions.
1. To see the number of repetitions of each step, push the REPEAT encoder (encoder 7), and the display will show "Repeat".
2. Turn each encoder just one detent, the display will show the step number and the actual repetitions number for that step without changing it. (default repetitions number is 1).
3. To change the repetitions of each step, move the corresponding encoder more than one detent, and the display will show the change of the repetitions number for that step, and the change will remain.
4. Push the PLAY/STOP button and you will listen to the sequence with the repetitions you just programmed.

G. Set probabilities.
1. To see the playing probability percentage of each step, push the PROB encoder (encoder 8), and the display will show "Probability".
2. Turn each encoder just one detent, the display will show the step number and the actual playing probability for that step without changing it. (default probability is 100%).
3. To change the probability of each step, move the corresponding encoder more than one detent, and the display will show the change in the probability for that step, and the change will remain.
4. Push the PLAY/STOP button and you will listen to the sequence with the steps playing or not based on the probability you just programmed for each step.

H. Set the CV2 and CV3 values.
The Mochika X5 can generate one PITCH voltage which is chromatic scale quantized, and also two nonquantized voltages CV2 and CV3 and store their values for each step.
Let's set the values for CV2 and CV3.

1. To see the CV2 value of each step, push the MOD/CV2 encoder, and the display will show "Mod/CV2".
2. Now if you turn each encoder just one detent, the display will show the step number and the actual CV2 value for that step without changing it. The default value is 0 and the maximum value is 255 which represents about 5volts and will be sent to the CV-2 output jack.
3. Now, to change the CV2 of each step, move the corresponding encoder more than one detent, and the display will show the change of CV value for that step, and the change will remain.
4. Repeat the process for the CV3 pushing the RND/CV3 encoder. Note that in CV3 the default value is 0 and the maximum value is 247 (5volt). And if you turn the value below 0 you can set the CV3 from Rnd1 to Rnd8 in which the mochika will generate from 1 to 8 random voltage values for that step and will be sent to the CV_3 output jack.

To save all the changes in the parameters described, perform the "Save a pattern" operation described before in section B.

Sequencer Settings.

I. Tempo Setting.
1. To set the tempo, push the OK/*Settings* button, and the display will show "settings".
2. Move the *Tempo* encoder (encoder 1) just one detent, the display will show the actual tempo in bpm without changing it. (default tempo is 120 bpm).
3. Move the *Tempo* encoder (encoder 1) more than one detent, the display will show the change of the tempo in bpm.

J. Gate offset setting.
1. To set the gate offset for all the steps in the pattern, push the OK/*Settings* button, and the display will show "settings".
2. Move the *Gate offset* encoder (encoder 2) just one detent, the display will show the actual gate offset without changing it. (default probability is 0).
3. Move the *Gate offset* encoder (encoder 2) more than one detent and the display will show the change in the offset.

K. First step setting.
1. To set the first step from which the sequence will start to play, push the OK/*Settings* button, and the display will show "settings".
2. Move the *First step* encoder (encoder 3) just one detent, the display will show the actual first step without changing it. (default first step is 1).
3. Move the *First step* encoder (encoder 3) more than one detent, the display will show the change in the first step number.
4. If the first step is set to a number greater than the last step, the sequence will play in the backward direction.

L. Last step setting.
1. To set the last step from which the sequence will loop to the first step, push the OK/*Settings* button, and the display will show "settings".

2. Move the *Last step* encoder (encoder 4) just one detent, the display will show the actual last step without changing it. (default last step is 16).
3. Move the *Last step* encoder (encoder 4) more than one detent, the display will show the change in the last step number.
4. If the last step is set to a number less than the first step, the sequence will play in the backward direction.

M. Synchronization setting.
1. To synchronize the Mochika X5 with an external clock or midi clock, push the OK/*Settings* button, and the display will show "settings".
2. Move the *Sync* encoder (encoder 5) just one detent, the display will show the actual synchronization source without changing it. (default is "int" internal clock).
3. Move the *Sync* encoder (encoder 5), the display will show the synchronization options, select the desired one and then push the OK/*Settings* button to confirm.
4. Now push the PLAY/STOP button. If the internal clock is set the sequence will start, if the external or midi clock is set, the unit will wait for an external or midi start signal to start playing the sequence.

Save and Load operations are described in the Basic operation sections: B and C.

N. Mode settings.
1. To set a playing mode push the OK/*Settings* button, and the display will show "settings".
2. Move the *Mode* encoder (encoder 8) just one detent, the display will show the actual playing mode without changing it.
3. Move the *Mode* encoder (encoder 8) more than one detent and the display will show the change in the mode
4. Select the desired one and then push the OK/*Settings* button to confirm.

The MochikaX5 has 8 playing modes:

1. SEQUENCE mode: it is the normal sequence mode it plays the steps from the first step to the last step, if the first step is set to a number greater than the last step the sequence will play reversed.

2. ALTERNATE mode: it will play from the first step to the last step and then reverse from the last to the first step and so on.

3. RANDOM mode: it will play from the first to the last step in random order.

4. DRUNK mode: it will play from the first to the last step, at each clock signal it has a 50% probability of advancing to the next step, a 25% probability of staying at the same step, and a 25% of going back one step.

5. DRONE mode: it will play the first step continuously, you can change the first step as described in section K.

6. STEP TRIGGER mode (StpTrigger): The pitch values and on/off values of a pattern become independent. It plays the next pitch only when the next step is ON.
   For example:
   • If the first step is ON it will play the pitch of the first step.
   • Then if the second step is OFF it will continue playing the pitch of the first step.
   • Then if the third step is ON it will play the pitch of the second step.
   • Then if the fourth step is OFF it will continue playing the pitch of the second step, and so on.
   It will play from step 1 to step 16 ignoring the first and last step settings.

7. ONE SHOT mode: it will play from the first step to the last step and then stop.

8. MIDI CONTROL mode: MidiCtrl 1 to MidiCtrl 16. It lets you set the incoming midi channel.
   When the sequencer is stopped you can play individual notes using an external midi controller connected to the midi input.
   When the sequencer is playing, you can transpose all the notes of the actual playing pattern using an external midi controller.