

Seven Bird Watchers

for drum machine ensemble

By Joo Won Park (2019)

Hardware and Performer Requirements

- 3 or more Korg **Volca Beats**: Each drum machine is about \$150
- 1 **media player**: can be an mp3 player, computer, phone, or other devices that can play a media file.
- 1 **mixer** or **audio signal splitter**: a device that can send the audio file player's output to each drum machine
- 3 or more **3.5mm stereo cables** for syncing. Adapters may be necessary depending on the mixer
- 3 or more **performers** willing to learn and play drum machine as an ensemble

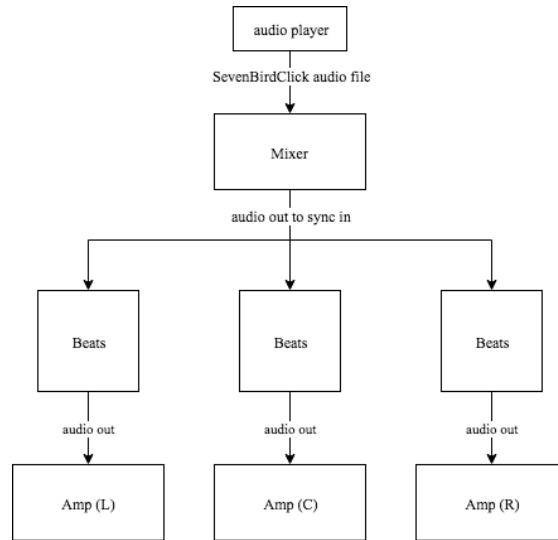
Performance Setup

1. On Volca Beats, program and save a patch with the pattern notated below (*16-step pattern chart*)
2. Download and print *SevenBirdWatchers.pdf*
3. Download *SevenBirdClick.mp3*, or *SevenBirdClick.aif* (www.joowonpark.net/sevenbirdwatchers) to the media player. Performers should be able to read the minutes and seconds of the audio playback
4. Connect the output of the media player to *Sync-In* of Volca Beats
5. Connect the output of Volca Beats to amplifiers. A stereo PA or separate amplifiers for each machine are recommended.
6. Press play on Volca Beats. If the synced correctly, there will be no sound
7. Press play on the media player. If the synced correctly, there will be sound on all drum machines

16-step pattern chart (X: on/active step)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Kick	X				X				X				X			
Snare					X								X			
Lo Tom				X	X				X						X	
Hi Tom		X	X		X	X	X		X		X	X		X		X
CL Hat	X		X		X		X		X		X		X		X	
OP Hat		X		X		X		X		X		X		X		X
Clap					X								X			
Claves	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Agogo	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Crash				X	X	X	X						X	X		
Stutter/Speed/Global Stutter: On																

Below is a *possible set up using a mixer and three amps*. The setup may have an audio splitter instead of a mixer, or a stereo PA system instead of three amps.



Score Interpretation

1:10 - 1:50 [2]										
L [1]	Time [4]		Depth [4]		feature delay time and depth change at slow down [6]		Pitch [4]		Decay [4]	
	Kick [3]	Snare[3]	Lo Tom[3]	Hi Tom [3]	Cl Hat [3]	Op Hat [3]	Clap [3]	Claves [3]	Agogo [3]	Crash [3]
8-13 [5]										

[1] : Parts name. There are three parts labeled as *Left*, *Center*, and *Right*. *L*'s sound should be on the left side of the stage, *C* on the center, and *R* on the right, creating a wide stereo image. If there are more than 3 performers, multiple devices can double the part

[2]: Corresponding time of the audio track. Each section is divided according to min: sec of the sync track. In the example above, player *L* should play the section between 1:10 to 1:50 of the audio file playback

[3]: Muted/unmuted parts: Darkened instrument names should be unmuted (i.e., should make a sound) Mute instruments in white rectangles. In the example above, only *Snare*, *Hi Tom*, *Cl Hat*, and *Agogo* are making sounds

[4]: Knob ranges. The two knobs on the left depict *Time* and *Depth* knob of the *Stutter* function. The two right knobs depict any active knobs that have a label with *Pitch/PCM Speed* and *Decay*. Freely move the knobs in the indicated range. In the example above, move the *Time* knob of *Stutter* between 9 O'clock and 3 O'clock angle. The performer also changes the *PCM Speed* of *Agogo* and *Closed Decay* of *Cl Hat* knobs

[5]: Step numbers. Change the number of active steps in a given range. In the example above, a performer can use *Active Step* function to choose the number of active steps from 8 to 13 steps. There are sometimes two sets of numbers present (e.g., 1-2, 5-16). For a small number of steps, use *Step Jump* for swifter change.

[6]: Additional instructions explaining featured techniques in each section. In the example above, the score instructs the performer to feature *Stutter* (delay) time and depth change when improvising

Performance Notes

Seven Bird Watchers is an electronic ensemble piece featuring synchronized tempo change and graphical notation. The pre-recorded audio file syncs all drum machines to seven sections of *accelerando* and *ritardando*. The performers' task is to change the parameters of the drum machine according to the notation.

- **Change parameters continuously.** This is the most important aspect of the piece. Do not stay in one knob position or step numbers for a long time
- Start changing the parameters to match each section's notation at the beginning of each section. Gradually change the number of steps and active instruments. It is OK if you manage to change to notated parameters towards the end of the section
- Learn the following functions of Volca Beats thoroughly before the rehearsal
 - *PCM Speed* change for *Clap*, *Claves*, *Agogo*, and *Crash*
 - *Stutter Time* and *Depth*
 - *Step Jump* and *Active Step*

Resources

Tutorial video and performance demo are available at www.joowonpark.net/sevenbirdwatchers

0:00 - 0:35

Left	Time	Depth		Pitch	Decay					
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
0 (do not play)										

Center	Time	Depth	Solo - always constantly change parameters		Pitch	Decay				
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
3 - 6										

Right	Time	Depth		Pitch	Decay					
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
0 (do not play)										

0:35 - 1:10

L	Time	Depth	always constantly change parameters		Pitch	Decay				
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
4 - 8										

C	Time	Depth	always constantly change parameters		Pitch	Decay				
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
3 - 9										

R	Time	Depth	always constantly change parameters		Pitch	Decay				
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
9 - 15										

1:10 - 1:50

L	Time	Depth	feature delay time and depth change at slow down				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
	8-13									

C	Time	Depth	feature delay time and depth change at slow down				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
	2-7									

R	Time	Depth	feature delay time and depth change at slow down				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
	6-12									

1:50 - 2:40

L	Time	Depth	feature one-step repetition				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
	1-3 (FUNC+STEP JUMP), 5-16									

C	Time	Depth	feature one-step repetition				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
	1-2 (FUNC+STEP JUMP), 5-16									

R	Time	Depth	feature one-step repetition				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
	1-3 (FUNC+STEP JUMP), 5-16									

2:40-3:35

L	Time	Depth	feature short delay time. Make and record chaotic pitch change				Pitch	Decay			
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash	
11-16											

C	Time	Depth	feature short delay time. Introduce Kick at slow down				Pitch	Decay			
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash	
3-12											

R	Time	Depth	feature short delay time. Make and record chaotic pitch change				Pitch	Decay			
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash	
3-8											

3:35-4:45

L	Time	Depth	Feature one-step repetition. Feature slow pitch up or down motion				Pitch	Decay			
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash	
1-3 (FUNC+STEP JUMP), 6-13											

C	Time	Depth	Feature one-step repetition. Feature slow pitch up or down motion				Pitch	Decay			
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash	
1-3 (FUNC+STEP JUMP), 6-12											

R	Time	Depth	Feature one-step repetition. Feature slow pitch up or down motion				Pitch	Decay			
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash	
1-3 (FUNC+STEP JUMP), 6-12											

4:45 - 6:10

L	Time	Depth	freely improvise. Make a climax and coda				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
1-16										

C	Time	Depth	freely improvise. Make a climax and coda				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
1-16										

R	Time	Depth	freely improvise. Make a climax and coda				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
1-16										

6:10 - 6:35

L	Time	Depth					Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
16										

C	Time	Depth	Kick Decay should be long				Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
16										

R	Time	Depth					Pitch	Decay		
	Kick	Snare	Lo Tom	Hi Tom	Cl Hat	Op Hat	Clap	Claves	Agogo	Crash
16										