

POINTS IN A FIELD WITH MOVING BREATH

for Solo Percussion and electronics

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Overview

This piece is to be performed on a single orchestral bass drum, turned on its side, along with eight snare drums placed at regular intervals around the bass drum. Each drum is to be miked individually (the snare drums may use piezo elements if necessary), and the performer is to wear a wireless microphone headset throughout the duration of the performance.

The piece consists of a series of sixteen Phrases comprised of nine eight-note Figures each, to be performed as quickly as possible, as quietly as possible, and as regularly as possible (in terms of both dynamics and rhythmicity).

Each Figure consists of eight-note patterns played on the bass drum and a given single snare drum, and are to be improvised within a framework specified in the score. Upon completing a Phrase, the performer will turn the opposite direction, and continue based on instructions given in the score. With each successive Phrase, the performer is to run further around the circle to begin the next Phrase, crossing over at the midpoint, and then running successively further again until the end of the sixteenth Phrase.

Upon reaching the end of the sixteenth Phrase, the performer may choose to repeat the entire Sequence from the beginning, or exit the stage. If the performer chooses to repeat the Sequence, s/he must end the performance at the end of an entire Sequence; the number of times repeated must be an exponent of the number two that is greater than or equal to zero. Once the performer has left the stage, the electronics should be kept running until everyone has left the room.

Over time, the rhythmic qualities of the performer's breath will naturally become more irregular, as will the intervals between successive Phrases and the Figures themselves. These natural changes in rhythmicity based on the physical requirements of such a performance are a central component of the piece, but are to be seen as byproducts of the performance process, and should not be exploited in any intentional or overtly performative manner.

Each Figure will be recorded and played back using a system built in Max/MSP. Successive passes will be added to the previous recording (which may increase, but not truncate, the length of the recording). However, these additional passes will not decrease the volume of the recording by a factor of two, and will therefore accumulate and increase in volume throughout the performance (at a rate determined by experimentation with the software in rehearsals). A simple trigger mechanism will be developed for an offstage performer to advance to the next Figure and/or Phrase.

The sound of the bass drum will be distributed evenly through all eight channels; the snare drum and the breath of the performer (transmitted via wireless microphone) will be distributed throughout the octophonic field using a Distance-Base Amplitude Panning algorithm based on the input from a graphics tablet used by the offstage performer to represent the location of the performer on stage.

Instructions

Play as quickly as possible.

Play as quietly as possible.

Rhythm + dynamics should be as even as possible.

Perform with wooden drum stick using only one end.

No two phrases should be identical (cf. Playing a Phrase).

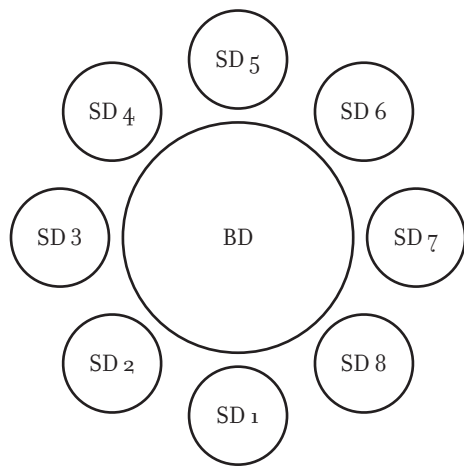
Face in direction of anticipated body movement.

When moving clockwise, play BD with right hand + SD with left.

When moving counter-clockwise, play BD with left hand + SD with right.

Performer may choose to repeat entire sequence any number of times, given that the number of repeats is a power of $2 \geq 0$.

Physical Layout of Performance Space



Staging Requirements

Lighting should be dim, almost black, with single white light on bass drum head (also dim).

Technical Requirements

Graphics tablet, computer, audio interface(s) with minimum of ten inputs and eight outputs, 1 mic for bass drum, 8 microphones or piezos for snares, 1 wireless headset mic for performer.

Electronics Requirements

Records nine eight-note phrases comprised of sounds from microphone input, snare drum and/or bass drum.

Input from a graphics tablet used by offstage determines recording on / off per sequence.

Perceived loop length may be increased (but not shortened) based on most recent recording into each buffer.

Each sequence is layered over previous recording associated with primary drum.

Overall volume for each additional layer is not reduced by $1/2$, so volume will accumulate per layer added.

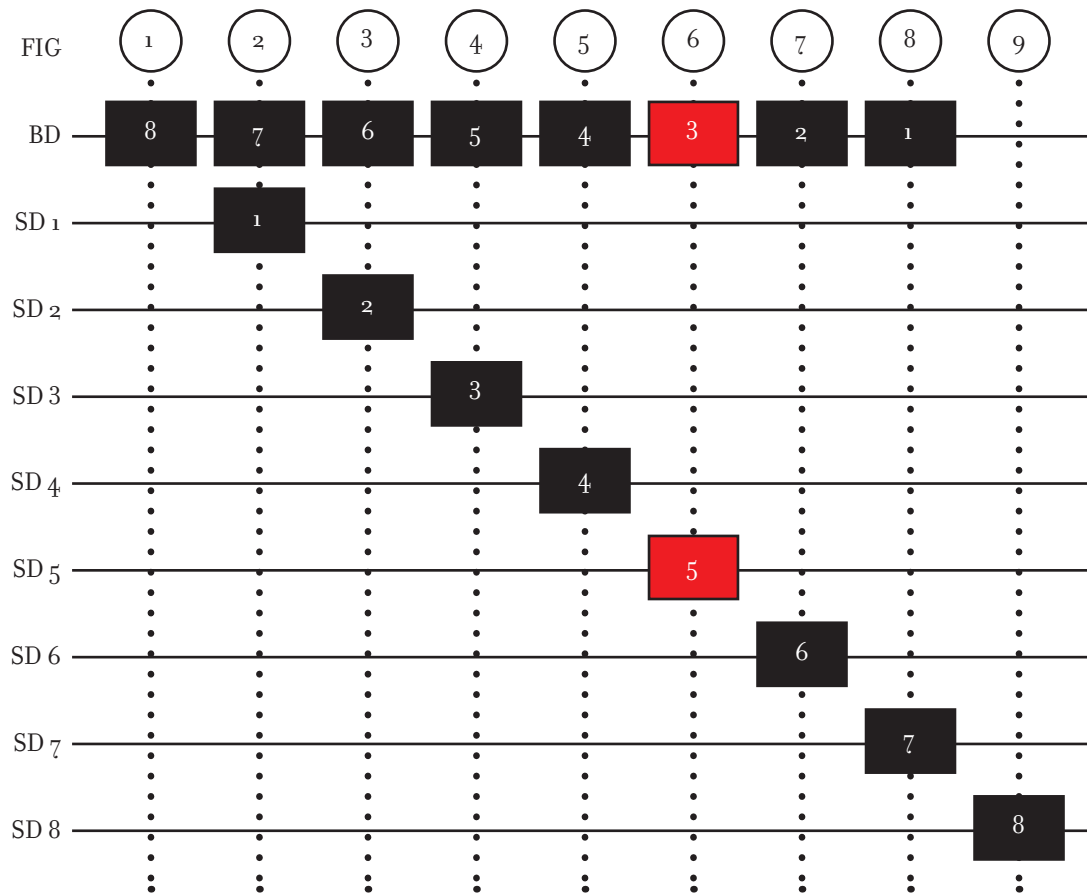
When performer has left the stage, leave electronics running until everyone has left the room.

Spatialization Requirements

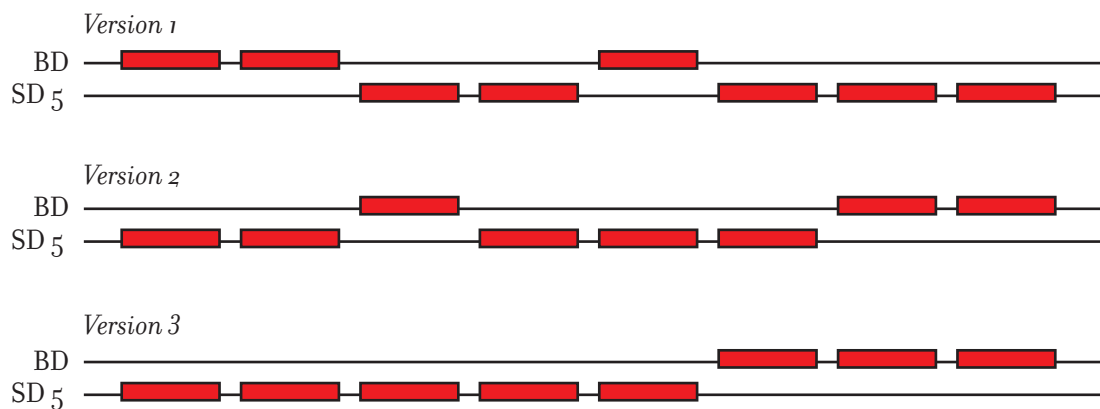
Bass Drum: Distributed evenly through speakers 1 – 8.

Snare Drum + Wireless Headset Microphone: Distributed to channel based on position of performer, as specified by graphics tablet input from offstage performer.

Playing a Phrase



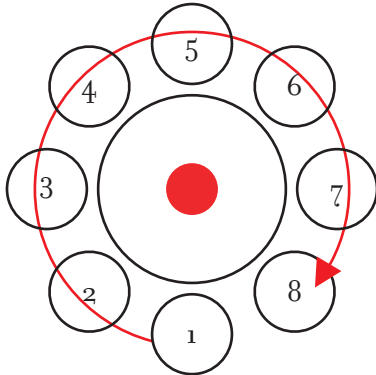
Given the above phrase, Fig. 6 is comprised of a series of 3 notes on BD, and 5 on SD 5—in any order. Thus, the resulting Figures could be any of the following options (among a host of many others):



While it is possible that a performer could conceivably repeat one version of any of these Figures throughout the duration of a given performance (especially if they have elected to repeat the Sequence), an effort should be made to improvise within the confines of the Figure. At the very least, no entire Phrase should be repeated verbatim as another Phrase (i.e. Phrases 1 and 3 should not be comprised of the same versions of Figs. 1–9).

Sequence of events: Phrases 1 – 4

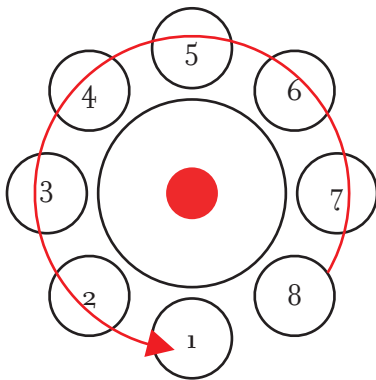
Begin facing clockwise by SD 1.



Phrase 1

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 1
- FIG. 3 6 notes on BD, 2 notes on SD 2
- FIG. 4 5 notes on BD, 3 notes on SD 3
- FIG. 5 4 notes on BD, 4 notes on SD 4
- FIG. 6 3 notes on BD, 5 notes on SD 5
- FIG. 7 2 notes on BD, 6 notes on SD 6
- FIG. 8 1 note on BD, 7 notes on SD 7
- FIG. 9 8 notes on SD 8

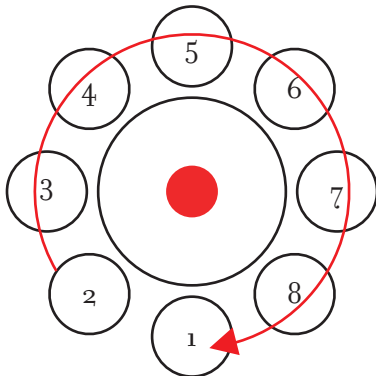
Turn counter-clockwise.



Phrase 2

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 8
- FIG. 3 6 notes on BD, 2 notes on SD 7
- FIG. 4 5 notes on BD, 3 notes on SD 6
- FIG. 5 4 notes on BD, 4 notes on SD 5
- FIG. 6 3 notes on BD, 5 notes on SD 4
- FIG. 7 2 notes on BD, 6 notes on SD 3
- FIG. 8 1 note on BD, 7 notes on SD 2
- FIG. 9 8 notes on SD 1

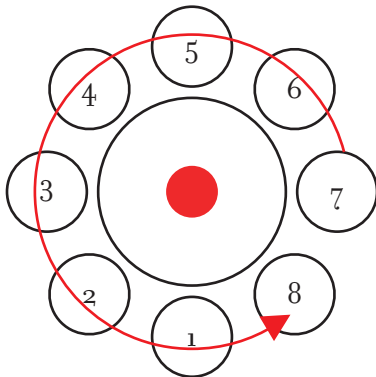
Turn clockwise and proceed quickly to SD 2.



Phrase 3

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 2
- FIG. 3 6 notes on BD, 2 notes on SD 3
- FIG. 4 5 notes on BD, 3 notes on SD 4
- FIG. 5 4 notes on BD, 4 notes on SD 5
- FIG. 6 3 notes on BD, 5 notes on SD 6
- FIG. 7 2 notes on BD, 6 notes on SD 7
- FIG. 8 1 note on BD, 7 notes on SD 8
- FIG. 9 8 notes on SD 1

Turn counter-clockwise and proceed quickly to SD 7.

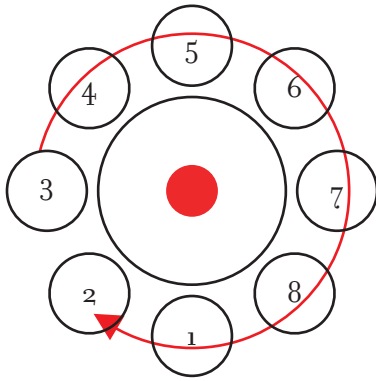


Phrase 4

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 7
- FIG. 3 6 notes on BD, 2 notes on SD 6
- FIG. 4 5 notes on BD, 3 notes on SD 5
- FIG. 5 4 notes on BD, 4 notes on SD 4
- FIG. 6 3 notes on BD, 5 notes on SD 3
- FIG. 7 2 notes on BD, 6 notes on SD 2
- FIG. 8 1 note on BD, 7 notes on SD 1
- FIG. 9 8 notes on SD 8

Turn clockwise and proceed quickly to SD 3.

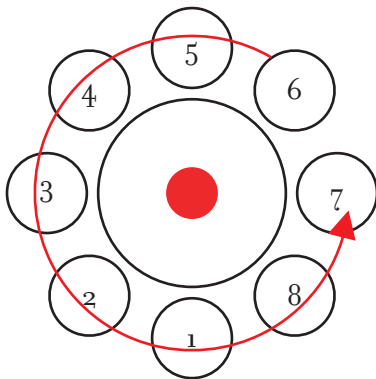
Sequence of events | Phrases 5 – 8



Phrase 5

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 3
- FIG. 3 6 notes on BD, 2 notes on SD 4
- FIG. 4 5 notes on BD, 3 notes on SD 5
- FIG. 5 4 notes on BD, 4 notes on SD 6
- FIG. 6 3 notes on BD, 5 notes on SD 7
- FIG. 7 2 notes on BD, 6 notes on SD 8
- FIG. 8 1 note on BD, 7 notes on SD 1
- FIG. 9 8 notes on SD 2

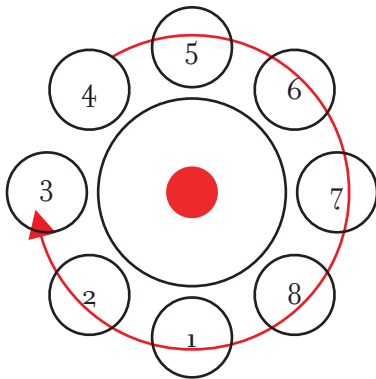
Turn counter-clockwise and proceed quickly to SD 6.



Phrase 6

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 6
- FIG. 3 6 notes on BD, 2 notes on SD 5
- FIG. 4 5 notes on BD, 3 notes on SD 4
- FIG. 5 4 notes on BD, 4 notes on SD 3
- FIG. 6 3 notes on BD, 5 notes on SD 2
- FIG. 7 2 notes on BD, 6 notes on SD 1
- FIG. 8 1 note on BD, 7 notes on SD 8
- FIG. 9 8 notes on SD 7

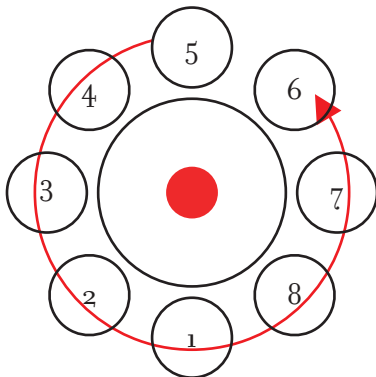
Turn clockwise and proceed quickly to SD 4.



Phrase 7

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 4
- FIG. 3 6 notes on BD, 2 notes on SD 5
- FIG. 4 5 notes on BD, 3 notes on SD 6
- FIG. 5 4 notes on BD, 4 notes on SD 7
- FIG. 6 3 notes on BD, 5 notes on SD 8
- FIG. 7 2 notes on BD, 6 notes on SD 1
- FIG. 8 1 note on BD, 7 notes on SD 2
- FIG. 9 8 notes on SD 3

Turn counter-clockwise and proceed quickly to SD 5.

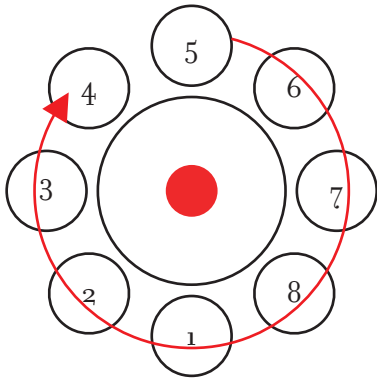


Phrase 8

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 5
- FIG. 3 6 notes on BD, 2 notes on SD 4
- FIG. 4 5 notes on BD, 3 notes on SD 3
- FIG. 5 4 notes on BD, 4 notes on SD 2
- FIG. 6 3 notes on BD, 5 notes on SD 1
- FIG. 7 2 notes on BD, 6 notes on SD 8
- FIG. 8 1 note on BD, 7 notes on SD 7
- FIG. 9 8 notes on SD 6

Turn clockwise.

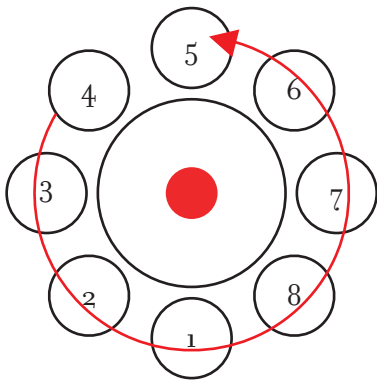
Sequence of events: Phrases 9 – 12



Phrase 9

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 5
- FIG. 3 6 notes on BD, 2 notes on SD 6
- FIG. 4 5 notes on BD, 3 notes on SD 7
- FIG. 5 4 notes on BD, 4 notes on SD 8
- FIG. 6 3 notes on BD, 5 notes on SD 1
- FIG. 7 2 notes on BD, 6 notes on SD 2
- FIG. 8 1 note on BD, 7 notes on SD 3
- FIG. 9 8 notes on SD 4

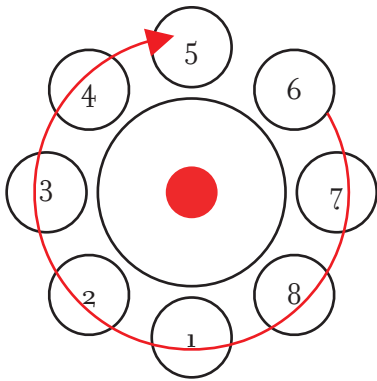
Turn counter-clockwise and proceed quickly to SD 4.



Phrase 10

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 4,
- FIG. 3 6 notes on BD, 2 notes on SD 3
- FIG. 4 5 notes on BD, 3 notes on SD 2
- FIG. 5 4 notes on BD, 4 notes on SD 1
- FIG. 6 3 notes on BD, 5 notes on SD 8
- FIG. 7 2 notes on BD, 6 notes on SD 7
- FIG. 8 1 note on BD, 7 notes on SD 6
- FIG. 9 8 notes on SD 5

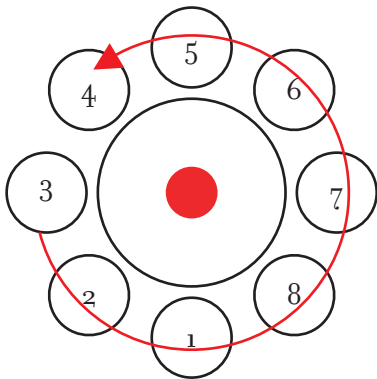
Turn clockwise and proceed quickly to SD 6.



Phrase 11

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 6
- FIG. 3 6 notes on BD, 2 notes on SD 7
- FIG. 4 5 notes on BD, 3 notes on SD 8
- FIG. 5 4 notes on BD, 4 notes on SD 1
- FIG. 6 3 notes on BD, 5 notes on SD 2
- FIG. 7 2 notes on BD, 6 notes on SD 3
- FIG. 8 1 note on BD, 7 notes on SD 4
- FIG. 9 8 notes on SD 5

Turn counter-clockwise and proceed quickly to SD 3.

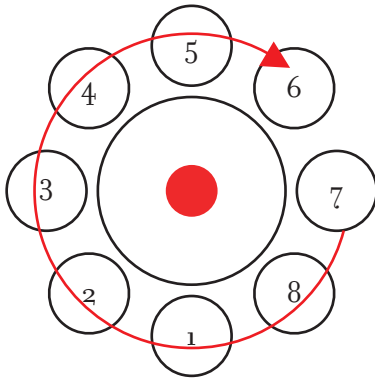


Phrase 12

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 3
- FIG. 3 6 notes on BD, 2 notes on SD 2
- FIG. 4 5 notes on BD, 3 notes on SD 1
- FIG. 5 4 notes on BD, 4 notes on SD 8
- FIG. 6 3 notes on BD, 5 notes on SD 7
- FIG. 7 2 notes on BD, 6 notes on SD 6
- FIG. 8 1 note on BD, 7 notes on SD 5
- FIG. 9 8 notes on SD 4

Turn clockwise and proceed quickly to SD 7.

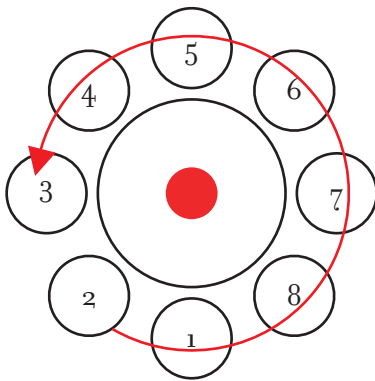
Sequence of events: Phrases 13 – 16



Phrase 13

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 7
- FIG. 3 6 notes on BD, 2 notes on SD 8
- FIG. 4 5 notes on BD, 3 notes on SD 1
- FIG. 5 4 notes on BD, 4 notes on SD 2
- FIG. 6 3 notes on BD, 5 notes on SD 3
- FIG. 7 2 notes on BD, 6 notes on SD 4
- FIG. 8 1 note on BD, 7 notes on SD 5
- FIG. 9 8 notes on SD 6

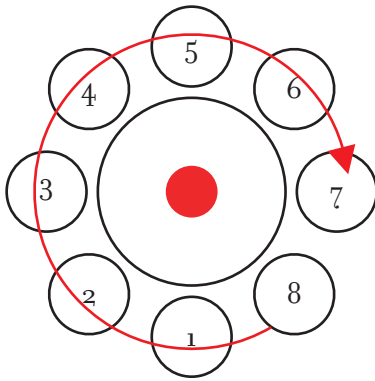
Turn counter-clockwise and proceed quickly to SD 2.



Phrase 14

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 2
- FIG. 3 6 notes on BD, 2 notes on SD 1
- FIG. 4 5 notes on BD, 3 notes on SD 8,
- FIG. 5 4 notes on BD, 4 notes on SD 7
- FIG. 6 3 notes on BD, 5 notes on SD 6,
- FIG. 7 2 notes on BD, 6 notes on SD 5
- FIG. 8 1 note on BD, 7 notes on SD 4,
- FIG. 9 8 notes on SD 3

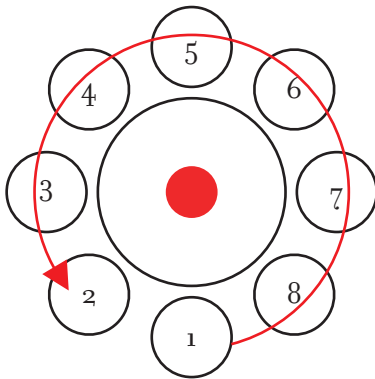
Turn clockwise and proceed quickly to SD 8.



Phrase 15

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 8
- FIG. 3 6 notes on BD, 2 notes on SD 1
- FIG. 4 5 notes on BD, 3 notes on SD 2
- FIG. 5 4 notes on BD, 4 notes on SD 3
- FIG. 6 3 notes on BD, 5 notes on SD 4
- FIG. 7 2 notes on BD, 6 notes on SD 5
- FIG. 8 1 note on BD, 7 notes on SD 6
- FIG. 9 8 notes on SD 7

Turn counter-clockwise and proceed quickly to SD 1.



Phrase 16

- FIG. 1 8 notes on BD
- FIG. 2 7 notes on BD, 1 note on SD 1
- FIG. 3 6 notes on BD, 2 notes on SD 8
- FIG. 4 5 notes on BD, 3 notes on SD 7
- FIG. 5 4 notes on BD, 4 notes on SD 6
- FIG. 6 3 notes on BD, 5 notes on SD 5
- FIG. 7 2 notes on BD, 6 notes on SD 4
- FIG. 8 1 note on BD, 7 notes on SD 3
- FIG. 9 8 notes on SD 2

Turn clockwise.

Repeat from Phrase 1 or exit stage.