

# Rotations and Slides

*by Casey Moir*

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for solo percussion, live effects and multichannel PA system

## ROTATIONS AND SLIDES

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### Full list of equipment/instruments

4 instrument microphones (Sm57 or similar, alt. 3 instrument microphones and 1 contact microphone)

2 Mic Preamps, 2 separate or one unit with 2 built-in

8 active speakers on stands

3 DI-boxes

Mixer for EQ (before soundcard in chain)

Soundcard with min. 8 outputs

Final mixer that supports 8 channel-system

2 snare drums on stands, each without under-membrane and snares

1 floor tom

2 small tables (around 80cm high)

1 metal biscuit-tin lid

5 small metal disks or cymbals

2 marbles (one on ML, and one on FT)

1 piece of foam, large enough to fit the ML on

2 Boss DD-7

1 midi footswitch controller

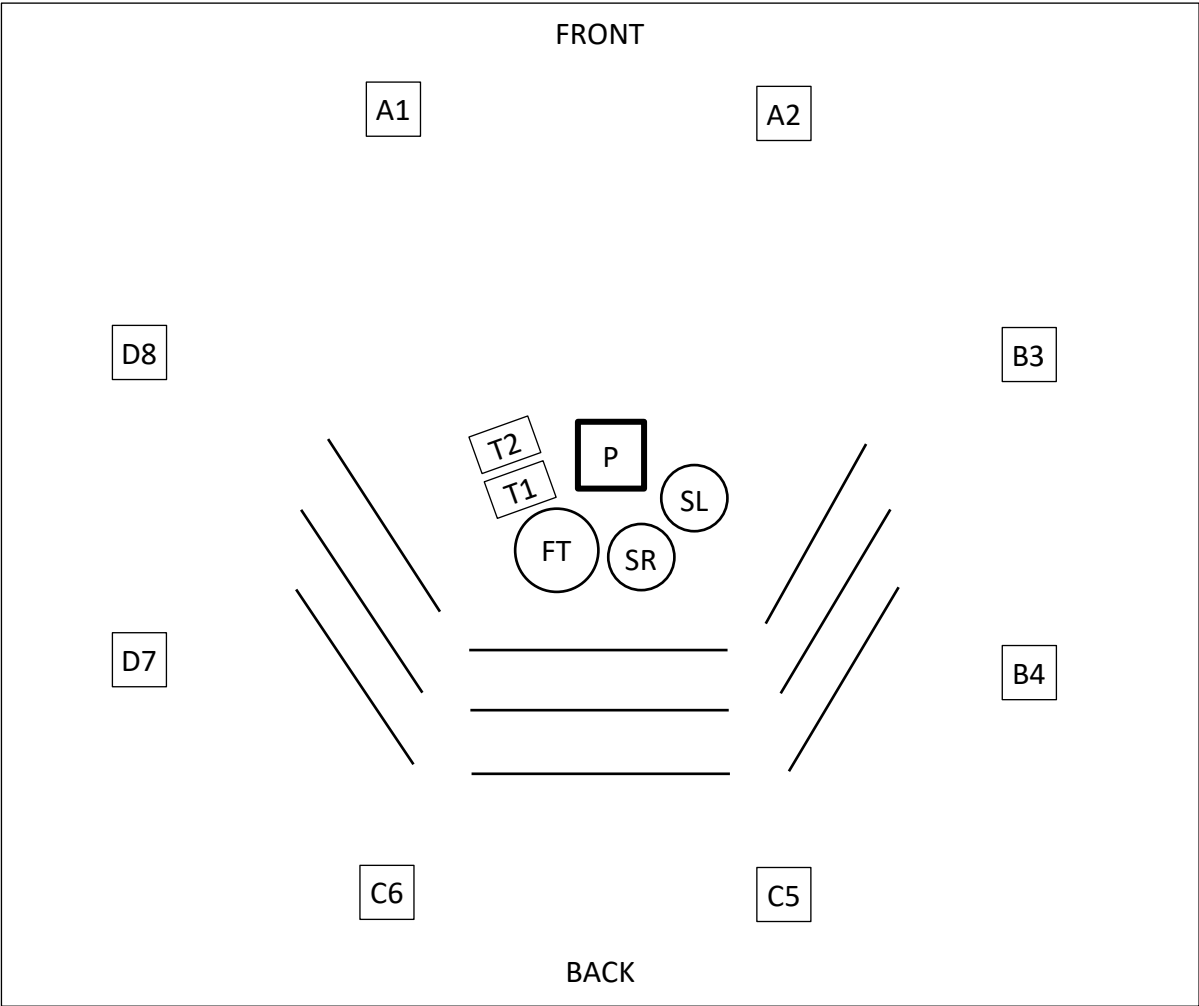
1 laptop with Ableton live and Max for live spatialization presets

3 small led lamps (blue) for illuminating drum membranes from underneath



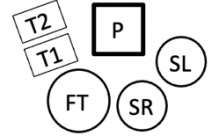
5 or more led lamps (blue) for perimeter lighting (*see notes on lighting*)

Possibly 2 led lamps from ceiling (*see notes on lighting*)

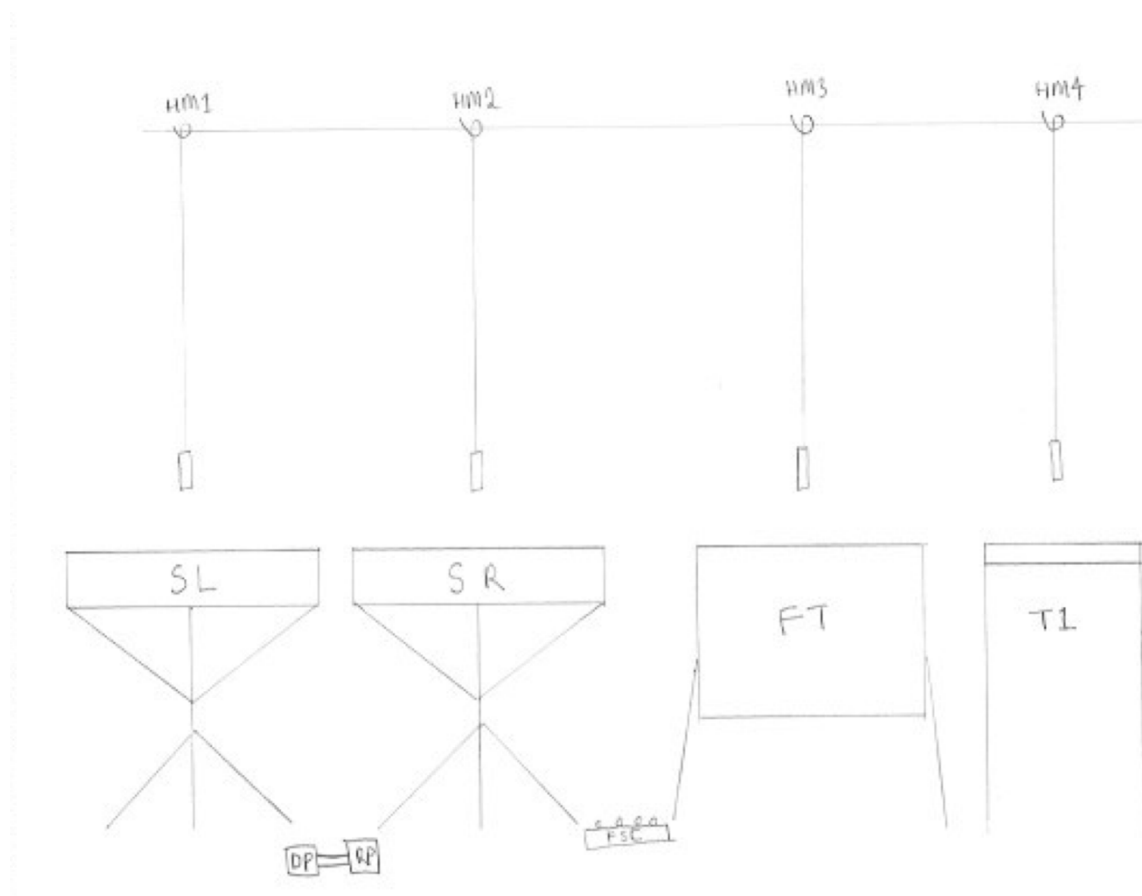
**Floor plan – Room layout**



**FLOOR PLAN LEGEND**

- 
loudspeaker (8 in total)
- 
audience
- 
performer and instrument layout

## Instrument layout from performers view:



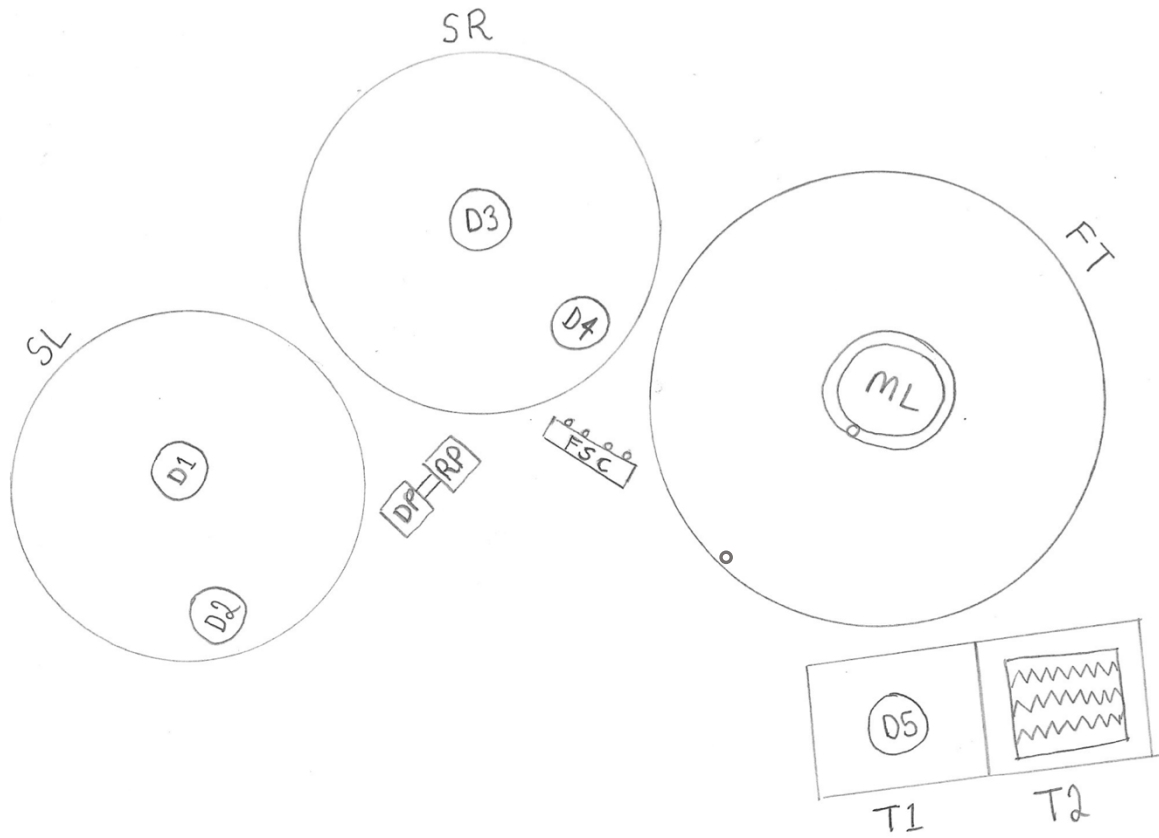
- SL = Snare Left, with white-coated head for friction
- SR = Snare Right, with white-coated head for friction
- FT = Floor Tom
- T1 = Table 1
- DP = Delay Pedal (Boss DD-7)
- RP = Reverse Pedal (Boss DD-7)
- FSC = Footswitch Controller


### Hanging Microphones


- HM1 = hang over center of SL, approximately 20-25cm above the membrane (head)
- HM2 = hang over center of SR, approximately 20-25cm above the membrane (head)
- HM3 = hang over center of FT, approximately 20-25cm above the membrane (head)
- HM4 = hang over center of T1, approximately 20-25cm above the surface (N.B. this microphone can be exchanged for a contact microphone attached to the table surface with tape or Blu tack)


*N.B hanging microphones are preferred as microphone stands would impede and disturb the wanted visual effect, namely giving the audience full view of the illuminated instruments*

**Instrument layout top-view:**



 = 5 small, round metal disks or small cymbals in total, labeled 1-5

 = 1 metal biscuit-tin lid with 1 marble

 = Table 2, with a piece of foam on it

Floor tom with one marble placed on outer-rim

## Footswitch Controller (FSC)

Programmable midi footswitch controller, like that shown here below or similar:



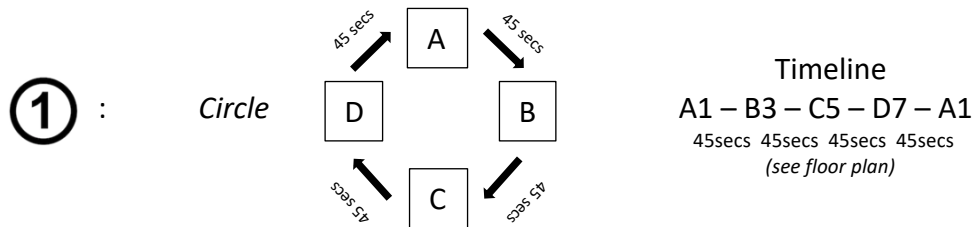
*iRig BlueBoard*

### PRESETS for FSC

Presets for spatialization of amplified sound through OCTO-SYSTEM

Presets programmed using Max for (Abelton) Live patches

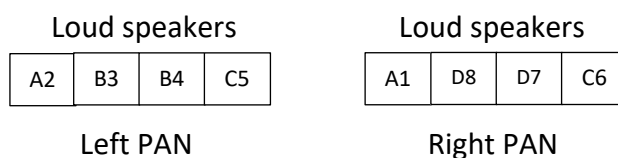
Midi-map each preset to its own specific stamp pad (button) on FSC



② : *Random*  
Random trajectory of sound and timing (length of time sound sounds in any speaker) utilizing all 8 speakers

③ : *All-in*  
All 8 speakers active, sounding simultaneously (in unison)

④ : *Stereo*  
Panning left and right in room to create stereo effect



*General note: aim for the amplified effect sounds and spatialization to be more prominent in the space than the acoustic sounds throughout the performance*

## Effect Pedals

### Boss Digital Delay DD-7: Delay setting



Connected to HM1 and 2 through a mic preamp



### Boss Digital Delay DD-7: Reverse setting



Connected to HM1 and 2 through a mic preamp



Chain of connection:

HM1 > Preamp > Reverse (DD-7) input A > output A > Delay (DD-7) input A > output A  
HM2 > Preamp > Reverse (DD-7) input B > output B > Delay (DD-7) input B > output A

N.B. The piece requires 2 DD-7 pedals, and 2 mic preamps (two separate or one unit with 2 built-in)

## Lighting: BLUE



### *3 small BLUE led lamps*

Remove the under membrane (and snares) of both snare drums and illuminate each upper membrane from underneath using small BLUE led lamps facing upwards, one per drum, fastened securely to the snare stand.

Illuminate the floor toms upper membrane in same fashion as above, but without removing the under-membrane, by placing the light facing upwards underneath the drum, on the floor or on a stable low stand of sorts.


Illuminate the perimeter of the space created by the encircling speakers, projecting blue light against outer walls or spreading across the floor away from the audience/performer.

- Lights can be placed at the foot of each speaker to create a blue circle (fill with more lights in between speakers if necessary)
- Alternatively, they can be placed to create a semi-circle in the front half of the room.
- Use as many lights as needed for the space
- If necessary for musician, use a soft blue light from ceiling in front of performer, angled diagonally towards the performer and instruments. This is dependent on how dark the room is in general. The darker the room, the more likelihood that this lighting is needed.


Angle music stands as low as possible, so as not to block the view of the instruments. Use clip on low-lights to illuminate the score, so that it is legible, but so the light does not draw audience focus.




**LEGEND**


 = metal biscuit-tin lid with marble






=  = Metal lid holding position 1  
 Make sure fingers are not dampening the sound by touching the lids underside or by gripping the sides too tight

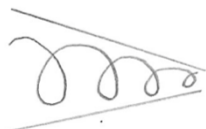





=  = Metal lid holding position 2  
 Hold and apply pressure with thumbs as shown


 = activate effect pedal


 = deactivate effect pedal


a)  b)  = circular rotation where density indicates speed of rotation, not length in time  
 a) moderate rotation  
 b) fast rotation


 = natural deceleration of marble rotation


 = solid line indicating height of ML in relation to hanging microphone and Floor Tom membrane (skin)  
 = dashed line indicating Floor Tom membrane  
 = solid line indicates Floor Tom membrane with object on its surface


 = lower or raise ML to/from Floor Tom membrane

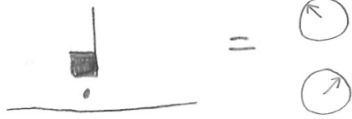
 = apply pressure to middle of ML with finger or thumb to change the sound  
- Width of symbol indicates length of action (thin=short, thick=longer)


 = use point-finger to initiate or maintain circular rotation of marble


 = initiate the spin of a metal disk, allowing it to spin and stop on its own


 = aggressively shake disk on the membrane while applying pressure to it


 = *Staccato sliding*: make short, determined disk-slides over the surface of the membrane. Done in combination with the following:

 = Notation implies trajectory of disk-slide, shown here as beginning with disk in middle of membrane and ceasing near the outer-rim







 = Notation implies trajectory of disk-slide, shown here as beginning with disk near the outer-rim and ceasing in middle of membrane

 = circular rotation of a disk against a membrane

 = disk-slides across the surface of a membrane, choosing any/either disk at will

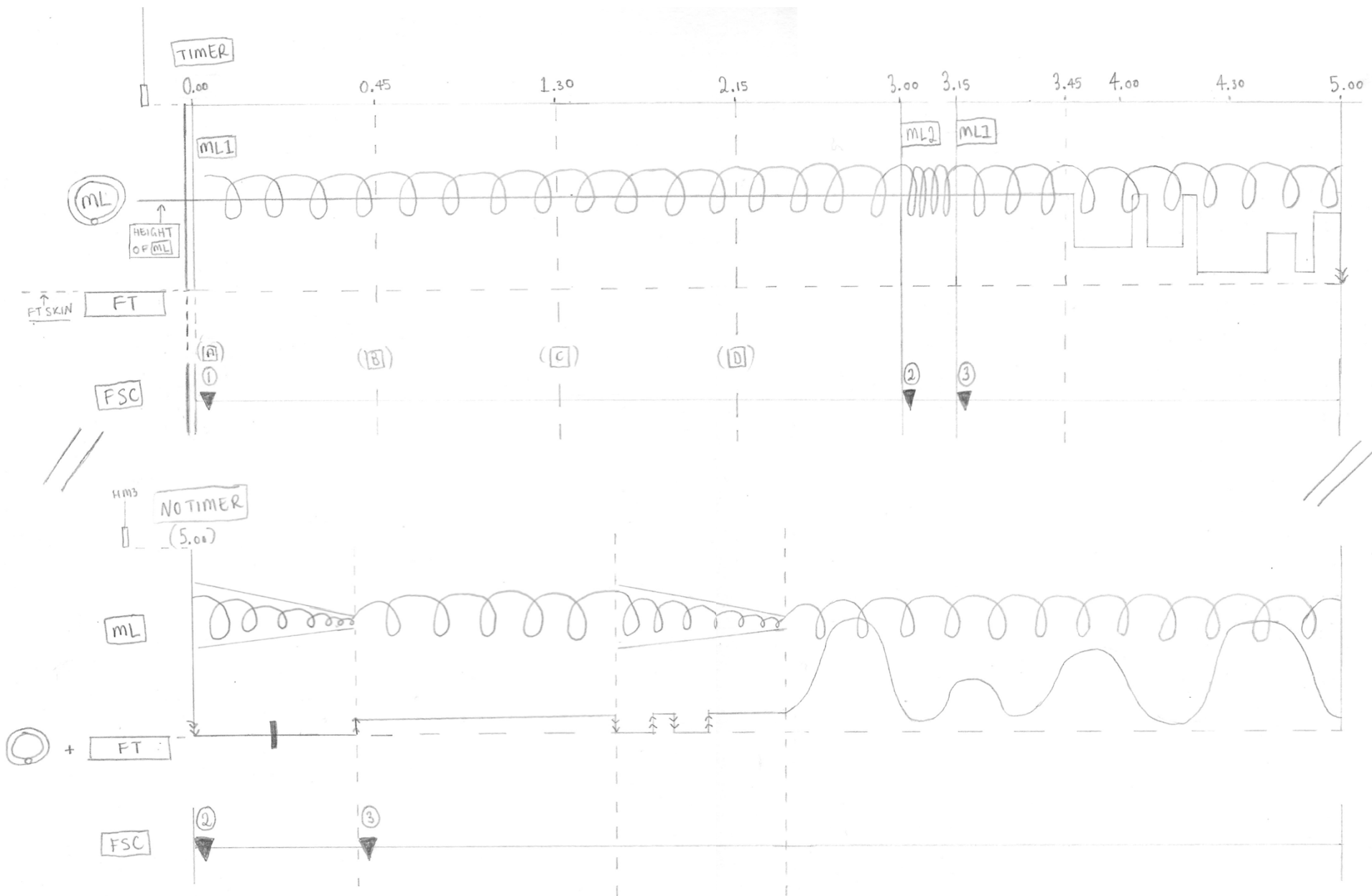
 = *Continual legato sliding*  
- Arrows indicate length of disk-slide in relation to other legato slides  
- The hollow square indicates that it's done with little to no pressure

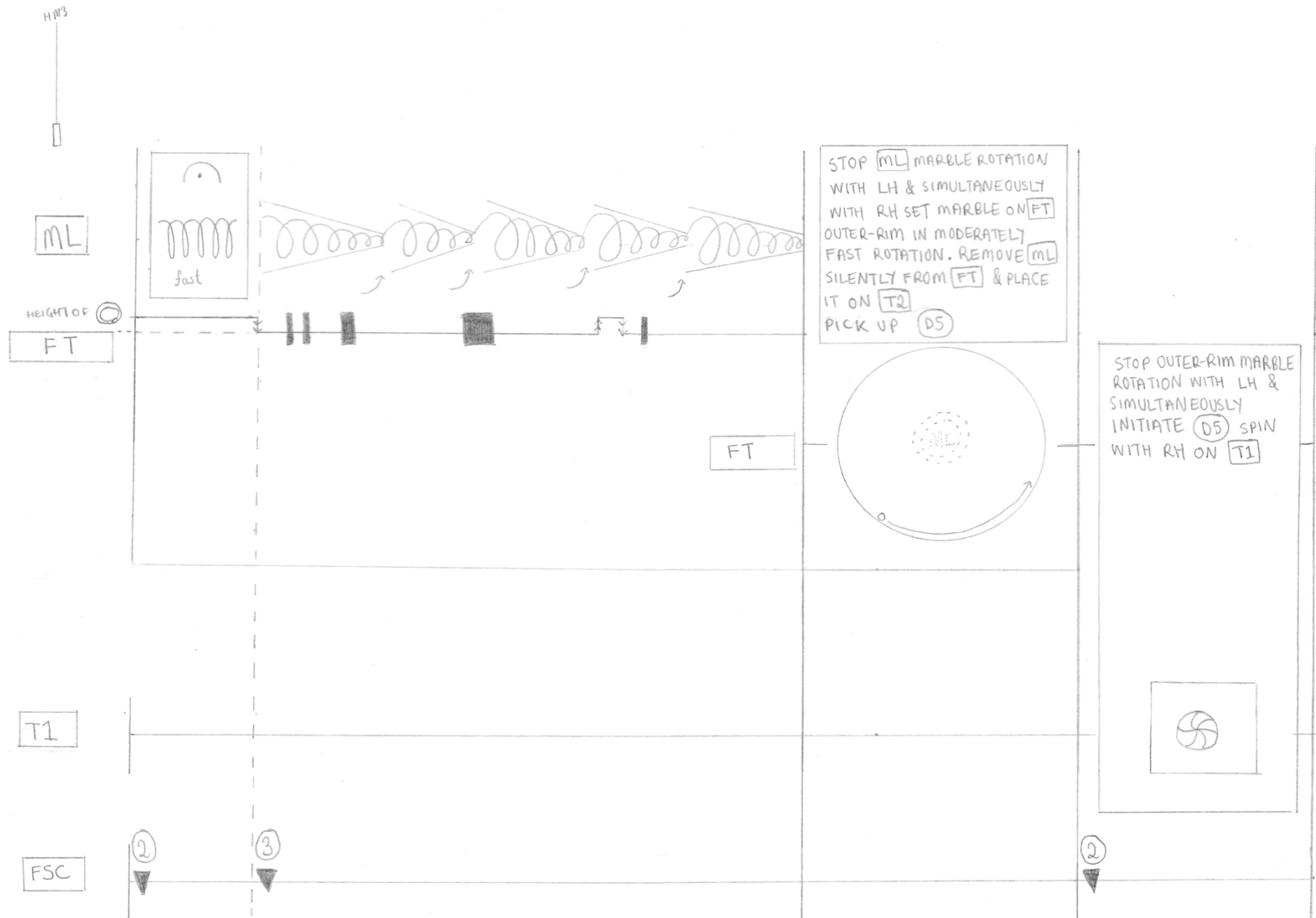
Sound-events:

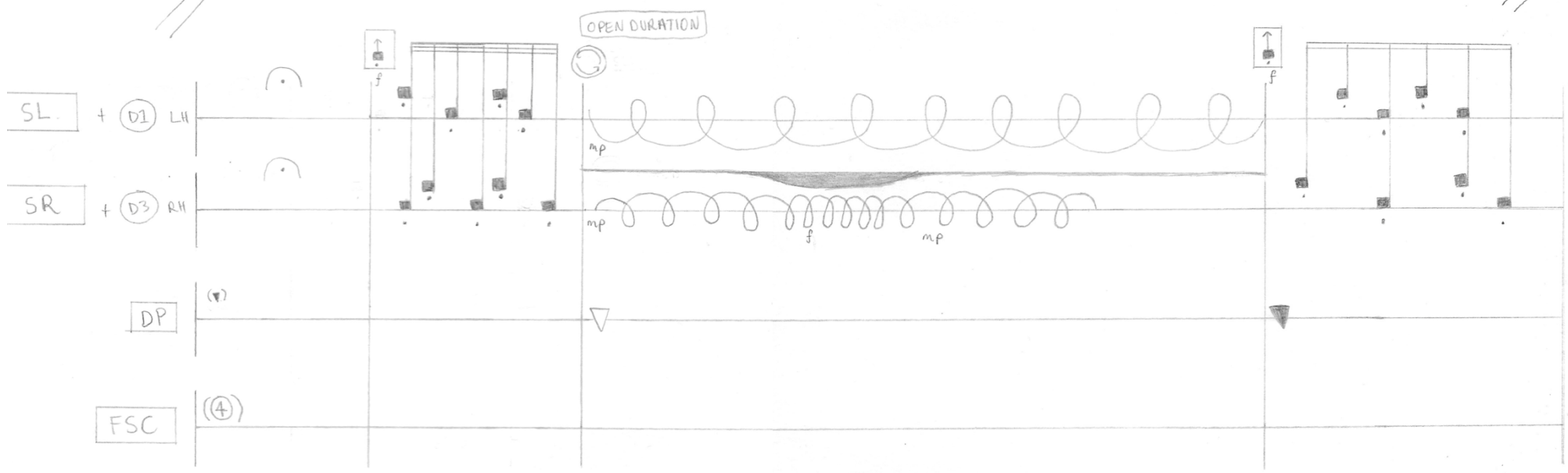
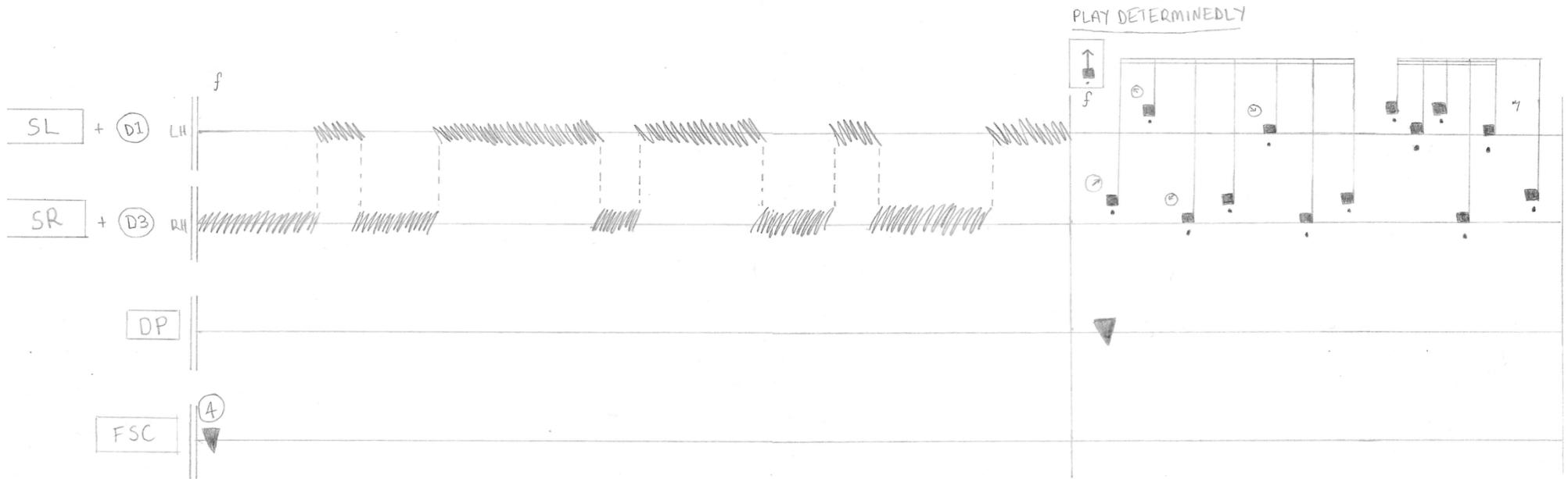
-  = apply pressure to metal disks and/or snare membrane by pressing with fingertip/s
-  = *simple release*: release pressure by lifting fingertip/s from surface in a swift and controlled manner
-  = *finger-flick release*: release pressure by flicking fingernail towards palm of hand in order to lift away from surface (disk can jump a little from surface during action)
-  = *finger-roll*: roll fingertips over a surface (disk or membrane)
-  = *fingernail-roll*: roll fingernails over a surface (disk or membrane)
-  = *disk-slide*: make short, determined disk-slide over membrane in any direction while apply pressure

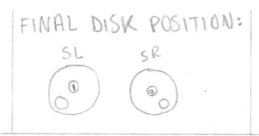
ROTATIONS AND SLIDES

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CONTINUAL LEGATO SLIDING

OPEN DURATION

ALTERNATE BETWEEN & USE:

FREELY	SPARINGLY

FREELY APPLY ABOVE TO DISKS 1-4 AND BOTH SL & SR SKINS

ASSUME ONLY ONE ACOUSTIC SOUND-EVENT AT ANY GIVEN TIME

THINK: SPACE AND DENSITY

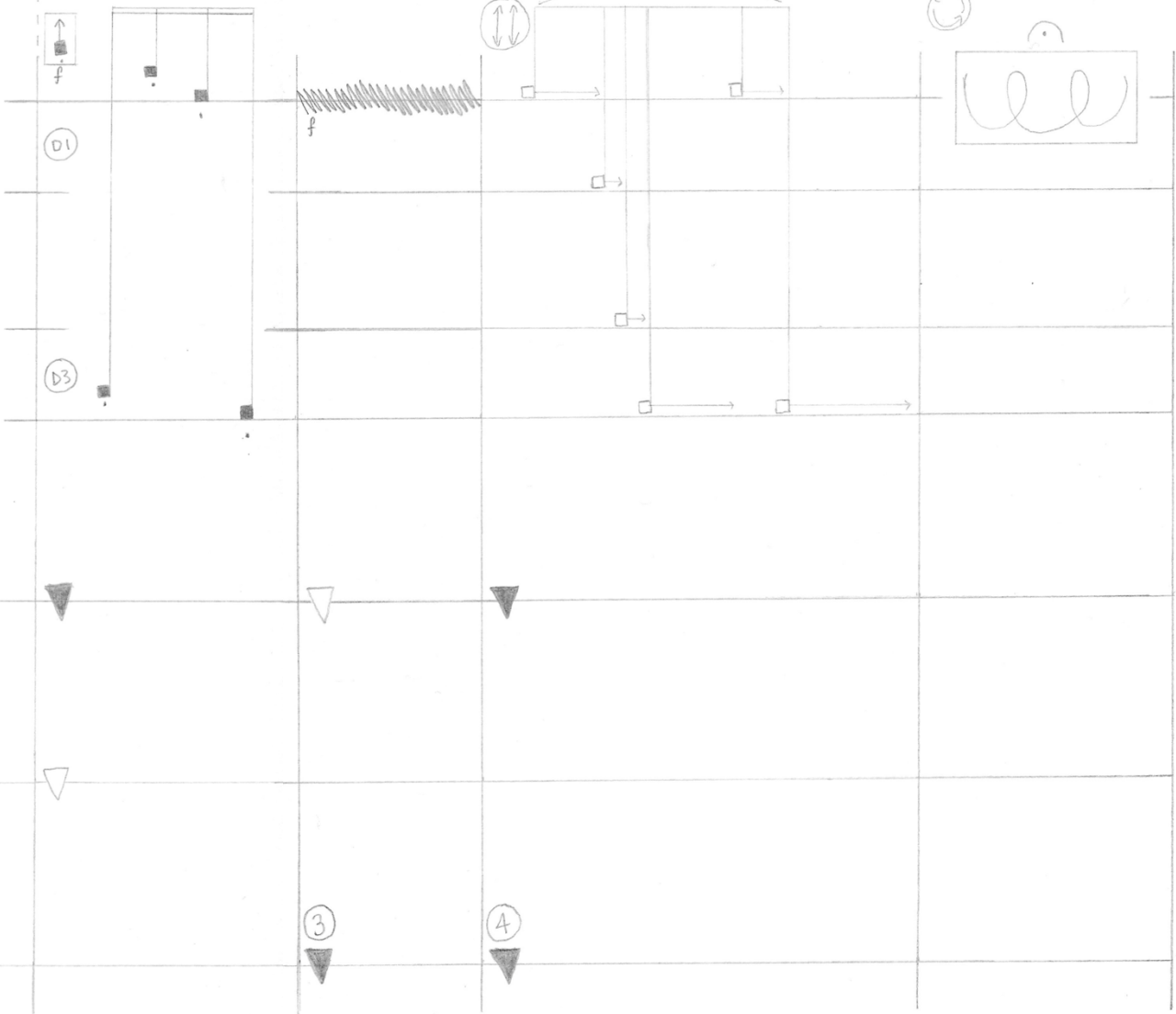
THINK: REPETITION AND IRREGULARITY

SL + (D1-2)

LH  
RH

SR + (D3-4)

LH  
RH



DP

RP

FSC

(4)

(3)

(4)



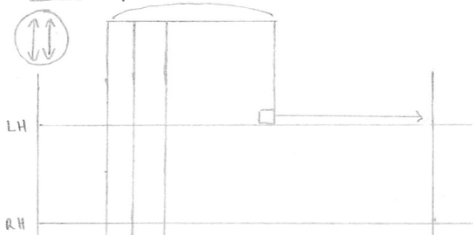
CONTINUAL LEGATO SLIDING

OPEN DURATION

SLOW - mp

SLOW - mp

SL + (D1-2)



SR + (D3-4)



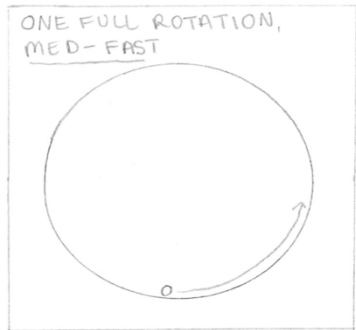
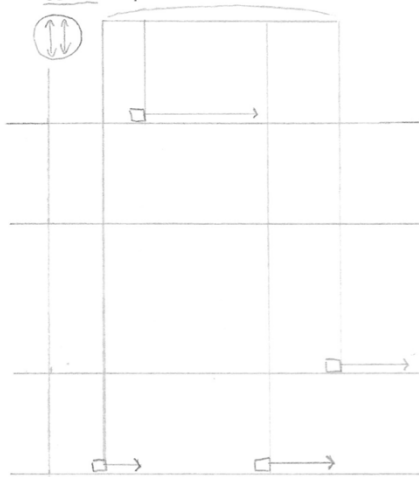
ALTERNATE BETWEEN & USE:

FREELY	SPARINGLY

FREELY APPLY ABOVE TO DISKS 1-4 AND BOTH SL & SR SKINS

ASSUME ONLY ONE ACOUSTIC SOUND-EVENT AT ANY GIVEN TIME.

THINK: SPACE AND DENSITY  
THINK: REPETITION AND IRREGULARITY



FT

RH

DP

(v)

RP

(v)

FSC

((4))

(3)

CONTINUAL LEGATO SLIDING

FINAL DISK POSITION



OPEN DURATION



D1

D3



SILENTLY PICK UP  
D5

( $\overset{a}{\sim}$  = PAUSES CAN VARY IN LENGTH AND ARE NON-RELATIONAL TO NOTE VALUE)

SLOW - mp



LH

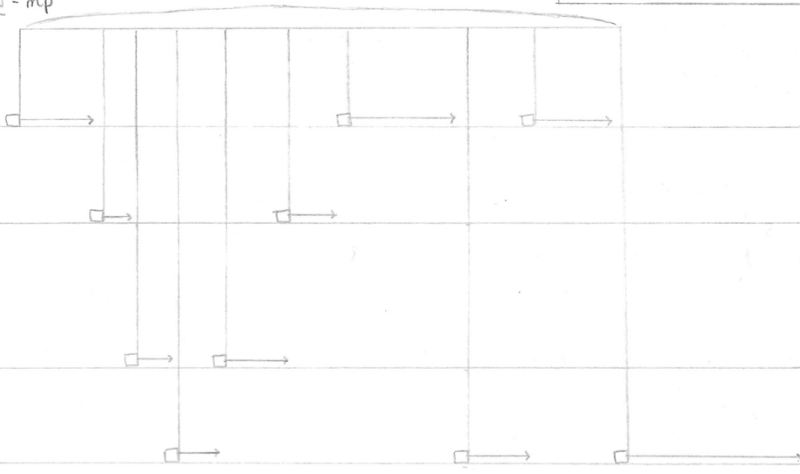
RH

LH

RH

SL + D1-2

SR + D3-4



FT

RH

STOP MARBLE  
ROTATION  
ABRUPTLY  
WITH RH

DP



RP



FSC



