*Code Explanation  Beta-Version: 1.00*

*Date: 09th of May 2020  Coded by: KitKatAndy*

LITTLE COMPANION:
INTERNAL TRIGGERING

#I
O 0; @F 0 0 3 3; M BPM 125
*Constraint for 0 – position of sequences; Matrix sequencer area definition; Metronome Speed*
O.MAX 15; @WRAP 1; @X 0; @Y 0
*Definition of sequences end step; Turtle is wrapping; Start position X of turtle; Start position Y of turtle*
G.FDX 0 5 0 5 1 2 5 4 1 2; A 0
*Creating both faders for trigger probability and CV – Slew; Avoids Turtle to move at the very first trigger in X direction*
G.BTX 0 0 0 1 1 1 5 6 4 4; B 0
*Creating Buttons for Matrix sequencer; Avoids Turtle to move at the very first trigger in Y direction.*
G.GBX 3 64 0 4 1 1 1 3 0 16 4
*Creating buttons for all 4 sequences.*
G.GBX 2 16 15 0 1 1 1 5 0 1 1
*Start / Stop Button*

#M
IF G.BTN.V 16: $ 4; $ 10; BRK
*Start / Stop for metro script. Reload $ 4; Reload $ I*
G.GBTN.L 3 3 3; D O; $ 4
*Lights dim for all sequences; Counting from 0 – 15; Calling $4 / condition of IN to choose Move type*
TR.P 4; $ 2; $ 3
*Trigger Clock Out; Calling X - move; Calling Y - move*
IF G.BTN.V + D 96: $ 1
*Calling CV - Trigger according to CV - Trigger Sequence*
L 4 7: G.BTN.L + D * I 16 10
*Case light*

#1
IF G.BTN.V + 112 D: K PN 1 16
*Calling of trigger probability amount*
IF G.BTN.V + 112 D: J PN 1 17
*Calling of CV - Slew amount*
CV.SLEW 1 * J 200
*Setting CV – Slew amount*
PROB * K 25: TR.P 1
*Triggering TR 1 with recalled probability*
CV 1 N @; J 0; K 100
*Setting CV 1 Note at current turtle position; Reset CV Slew amount to 0; Reset probability amount to 0*

#2 *– Calling of X - Move*
IF G.BTN.V + D 64: T 1

*If current step is set active in the X - Move Sequence it activates constraint T for moving in X direction.*
IF * T A: @MOVE PN 0 X 0
*Moves turtle one step in X direction if T and A is set to 1. A is initially set to 0 to avoid a movement at first step of X - Move Sequence to have a synced step timing for matrix sequence and X - Move Sequence.*
CV 2 N @; A 1
*Sets current CV - Note on CV 2 – only at X – movements; After first step constraint A will be always 1*
IF T: TR.P 2; T 0
*If the current step is selected, it pulses TR 2; Constraint T (step active / inactive) will be reset to 0.*
G.CLR; G.LED @X @Y 8
*Clears all LEDs which where activated by an LED-OP; Activates LED at turtle position.*

#3 *– Calling of Y - Move*
IF G.BTN.V + D 80: T 1
*If current step is set active in the Y - Move Sequence it activates constraint T for moving in X direction.*
IF * T B: @MOVE 0 PN 0 Y
*Moves turtle one step in Y direction if T and B is set to 1. B is initially set to 0 to avoid a movement at first step of Y - Move Sequence to have a synced step timing for matrix sequence and Y - Move Sequence.*
CV 3 N @; A 1; B 1
*Sets current CV - Note on CV 3 – only at Y – movements; After first step constraint A will be always 1; After first step constraint B will be always 1*
IF T: TR.P 3; T 0
*If the current step is selected, it pulses TR 3; Constraint T (step active / inactive) will be reset to 0.*
G.CLR; G.LED @X @Y 8
*Clears all LEDs which where activated by an LED-OP; Activates LED at turtle position.*

#4
PN 1 16 G.FDR.N 0
*Write trigger probability fader amount to pattern.*
PN 1 17 G.FDR.N 1; X 50; Y 50
*Write CV - Slew fader amount to pattern; Setting movement direction X to 0; Setting movement direction Y to 0*
W < IN V 4: X 48
*If at IN Voltage < 4 is detected: X – movements will be +1.*
W > IN V 6: X 49
*If at IN Voltage > 6 is detected: X – movements will be -1.*
W < IN V 2: Y 48
*If at IN Voltage < 2 is detected: Y – movements will be +1.*
W > IN V 8: Y 49
*If at IN Voltage > 8 is detected: Y– movements will be -1.*

#5

#6 *– Recalled with push on a button in the matrix sequencer.*
L 0 15: I; $ 7
*Recalls $7 sixteen times with I 0 -15 for all 16 matrix buttons.*

#7

C SCL 0 V 7 0 84 PRM
*Sets C to a note scaled amount according to param knob.*
IF G.BTN.V I: PN % I 4 / I 4 C
*Checks activity status of matrix button and updates its CV – note amount if active.*
CV 4 N C
*Outputs CV Note C via CV 4.*
DEL 200: $ 8
*Delays 200ms $8 – determined through error and trail to get best compromised behaviour sequencer tightness / usability. May be adjusted if lagging occurs.*

#8
IF > G.GBTN.C 0 1: $ 6
*If a button in the matrix is active repeat process $6, $7; $8.*
ELSE: BREAK
*If no button in the matrix is active it breaks the loop for continuous CV – note setting.*

#P

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|---|---|---|---|
| 2 | 2 | 2 | 2 |
| 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 |
| 63 | 63 | 63 | 63 |
| | | | |
| 36 | 36 | 36 | 36 |
| 36 | 36 | 36 | 36 |
| 36 | 36 | 36 | 36 |
| 36 | 36 | 36 | 36 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 4 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 |
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| 1 | 0 | 0 | 0 |
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| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 |
| -1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
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