

Piano Playing Docs | Methods

[Draft]

JJ van Zon, 2021

Piano Motion Symbols

Introduction

This is an idea for a notation for that might extend fingering notation from just numbers to additional symbols, indicating how the hands and body might move.

I hope this might help create awareness of the body and help with piano technique.

Piano playing may involve:

- position, move, spread, turn, press, stress or hold stationary
- fingers, wrist, arm and torso
- in x, y or z directions.

Not all body parts or motions seem equally involved.

These symbols aim to be a quite literal representation of body and motion, while still schematic and hopefully not ambiguous.

Basic Elements

	Finger		Move		Press
	Fingers		Spread		Loose
	Wrist		Turn		Tight
	Torso / arms		Stationary		Slightly (braces)

Three Dimensions

Depicting things in 3 dimensions, the symbols may be like looking down at the hands in a sort of perspective projection. To represent depth, diagonal lines might be used. Here is how some things might work in 3 dimensions:

 Move left / right



Turn facing you



Move toward black / white keys



Turn forward / backward



Move into keys



Turn side to side



Move out of keys

Turning

Turn facing you
(clockwise)



Turn facing you
(counter-clockwise)



Turn right



Turn left



Turn left / right



Turn forward



Turn backward

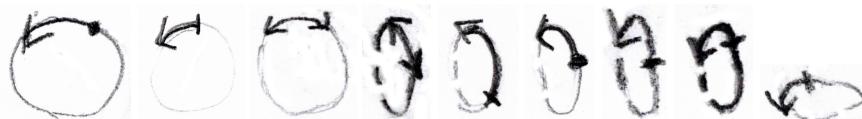


Turn forward / backward



The dashed line may depict it being further away.

Turning Arc



Nuance

Nuance, like press *a little* or move *a lot*, may be written down like this:

	Restfully	Slightly	Normally	Exaggerated
Press				
Move				
Tight Wrist				
Loose Wrist				

Tension & Release

	Reach sideways	Then let go, move hand back.
	Reach sideways	Then let go, move hand back.
	Spread	Spreading fingers wider. But trying to release soon.
	Reach black keys	If arpeggiated, might prefer crossing over instead.
	Reach white keys	If arpeggiated, might prefer crossing over instead.
	Spread diagonally	Composite of spread sideways and reach for black keys.
	Arm move into key	Pressure coming out of the arm.
	Hand resting on keys	
	Hand resting on lap	

Jumps

	Hand upward (right)
	Hand upward (left)

	Gravity assist (right)	Falling into key with gravity.
	Gravity assist (left)	Falling into key with gravity.
	Bowy jump (sideways)	
	Controlled jump (sideways)	Though grace might desire a bowy move, a jump may be rather big, and might need some control, so perhaps move toward first, then press.

Cross Over

May feel semi-smooth.

	Cross over (large)		Thumb under finger / right hand		With wrist turn (thumb under finger / right hand)
	Cross over (small)		Finger over thumb / right hand		With wrist turn (finger over thumb / right hand)
			Thumb under finger / left hand		With wrist turn (thumb under finger / left hand)
			Finger over thumb / left hand		With wrist turn (finger over thumb / left hand)

Fingers

This might be used to say something specific about a finger in terms of motion, tension or otherwise.

Finger Position

And different amounts of fingers.

	Curved / High Fingers	Pronounced Fingers	Flat Fingers (Upward)	Flat Fingers (Downward)
1 Finger (Left)				
1 Finger (Right)				
2 Fingers				
3 Fingers				

	Curved / High Fingers	Pronounced Fingers	Flat Fingers (Upward)	Flat Fingers (Downward)
4 Fingers				
5 Fingers				

Fingers Stationary

	Curved / High	Pronounced	Flat	Number
Fingers Stationary (left / right / 1 finger)	17/	17/	11/	14/
Fingers Stationary (left / right / 3 fingers)	13/	157/	12/	
Fingers Stationary (in / out of keys / 1 finger)	2	2	3	4
Fingers Stationary (in / out of keys / 3 fingers)	13/	14/	15/	
Fingers Stationary (toward black / white keys / 1 finger)	2	2	12	4
Fingers Stationary (toward black / white keys / 3 fingers)	13/	14/	15/	

Finger Move

Finger move (right)

$$\begin{array}{ccccccccc} \overset{\rightarrow}{3} & 3 \rightarrow & \overset{\rightarrow}{3} & \rightarrow 3 & \overset{\rightarrow}{2} & \hookrightarrow & \downarrow & \rightarrow \\ \hline \overset{\rightarrow}{3} & \overset{\rightarrow}{3} & \rightarrow 3 & \overset{\rightarrow}{3} & \overset{\rightarrow}{3} & 3 \rightarrow & 3 \rightarrow & \overset{\rightarrow}{3} \end{array}$$

Finger move (left)

$$\begin{array}{ccccccccc} \overset{\circ}{3} & 3\leftarrow & \overset{3}{\leftarrow} & \leftarrow 3 & \overset{5}{\leftarrow} & \leftarrow 5 & \leftarrow & \leftarrow & \leftarrow \\ \hline \leftarrow m & \leftarrow 3 & \leftarrow m & \leftarrow 5 & \leftarrow 3 & \leftarrow m^+ & m \leftarrow & \leftarrow 3 & \leftarrow \end{array}$$

Finger move (right / left)

$\overset{\leftrightarrow}{\overset{3}{3}}$ $3 \leftrightarrow$ $\overset{3}{\leftrightarrow}$ $\leftrightarrow 3$ $\leftrightarrow 3 \rightarrow$ $\overset{\leftrightarrow}{\overset{r}{r}}$ $r \leftrightarrow$ $\overset{\leftrightarrow}{\overset{r}{r}}$

$\leftarrow\overrightarrow{3}$ $\leftarrow\overleftarrow{3}$ $\leftrightarrow m$ $\overleftarrow{\overrightarrow{3}}$ $\overrightarrow{\overleftarrow{3}}$ \overrightarrow{m} $m \leftrightarrow$ $\overleftarrow{\overrightarrow{3}}$

Finger move (toward black keys)

$\overset{\uparrow}{3}$ $3\uparrow$ $\overset{\uparrow}{3}$ $\uparrow 3$ $\overset{\uparrow}{c}$ $c\uparrow$ $\overset{\uparrow}{f}$ $f\uparrow$ $1c$

$\overset{\uparrow}{3}$ $\uparrow 3$ $\uparrow m$ $\overset{\uparrow}{3}$ $\uparrow 3$ $3\uparrow$ $m\uparrow$ $\overset{\uparrow}{3}$

Finger move (toward white keys)

$\downarrow\overset{\downarrow}{3}$ $3\downarrow$ $\overset{\downarrow}{3}$ $\downarrow 3$ $\overset{\downarrow}{c}$ $c\downarrow$ $\overset{\downarrow}{f}$ $f\downarrow$ $\downarrow r$

$\downarrow\overset{\downarrow}{3}$ $\downarrow 3$ $\downarrow m$ $\overset{\downarrow}{3}$ $\downarrow 3$ $3\downarrow$ $m\downarrow$ $\overset{\downarrow}{3}$

Finger move (toward black / white keys)

$\overset{\uparrow}{3}$ $3\uparrow$ $\overset{\uparrow}{3}$ $\uparrow 3$ $\overset{\uparrow}{3}$ $3\downarrow$ $\overset{\uparrow}{c}$ $c\downarrow$ $\overset{\uparrow}{f}$ $f\downarrow$

$\overset{\uparrow}{3}$ $\leftrightarrow\overrightarrow{3}$ $\overset{\uparrow}{\overleftarrow{3}}$ $\overset{\uparrow}{3}$ $\overset{\uparrow}{3}$ $3\downarrow$ $\overset{\uparrow}{\overleftarrow{3}}$ $\overset{\uparrow}{3}$ $3\downarrow$

Finger move (into keys)

$\overset{\leftarrow}{3}$ $3\leftarrow$ $\overset{\leftarrow}{3}$ $\leftarrow 3$ $\overset{\leftarrow}{3}$ $3\leftarrow$ $\overset{\leftarrow}{3}$ $3\leftarrow$ $\leftarrow 3$

$\overset{\leftarrow}{r}$ $r\leftarrow$ $\overset{\leftarrow}{c}$ $\leftarrow r$ $\overset{\leftarrow}{f}$ $f\leftarrow$ $\overset{\leftarrow}{?}$ $? \leftarrow$

$\overset{\leftarrow}{3}$ $\leftarrow 3$ $\leftarrow m$ $\overset{\leftarrow}{3}$ $\leftarrow 3$ $3\leftarrow$ $\overset{\leftarrow}{3}$ $3\leftarrow$ $m\leftarrow$ $\overset{\leftarrow}{3}$

Finger move (out of keys)

$\overset{\rightarrow}{3}$ $3\rightarrow$ $\overset{\rightarrow}{3}$ $\rightarrow 3$ $\overset{\rightarrow}{3}$ $3\rightarrow$ $\overset{\rightarrow}{3}$ $3\rightarrow$ $\rightarrow 3$

\vec{r} $r\rightarrow$ \vec{c} $\rightarrow r$ \vec{f} $f\rightarrow$ $\overset{\rightarrow}{?}$ $? \rightarrow$

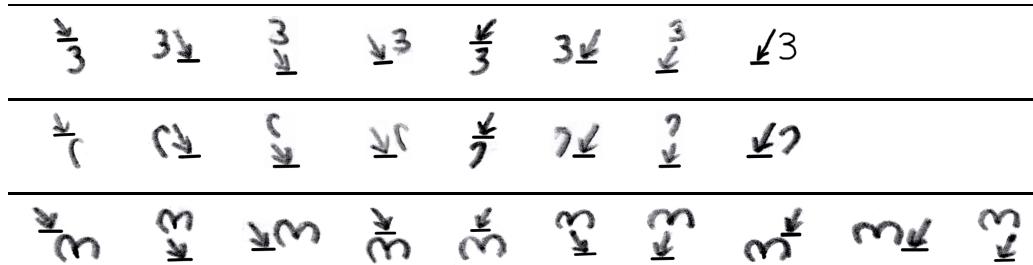
$\overset{\rightarrow}{3}$ $\rightarrow 3$ $\rightarrow m$ $\overset{\rightarrow}{3}$ $\rightarrow 3$ $3\rightarrow$ $\overset{\rightarrow}{3}$ $3\rightarrow$ $m\rightarrow$ $\overset{\rightarrow}{3}$

Finger move (in / out of keys)



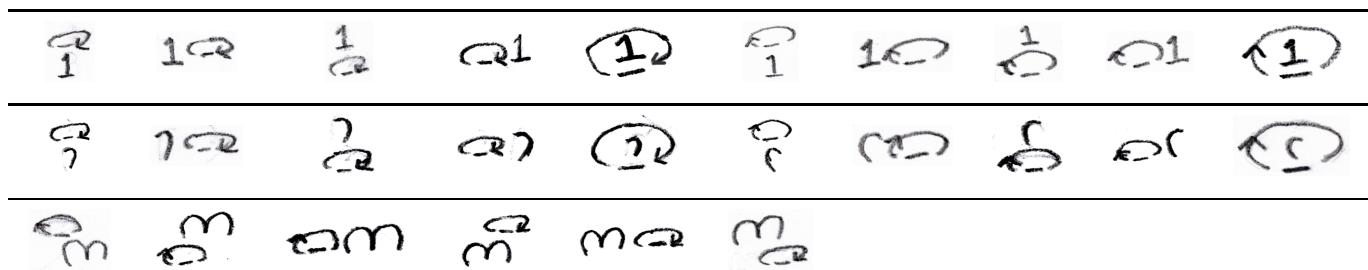
Finger Press

May be usually downward into the keys, not likely in other directions.

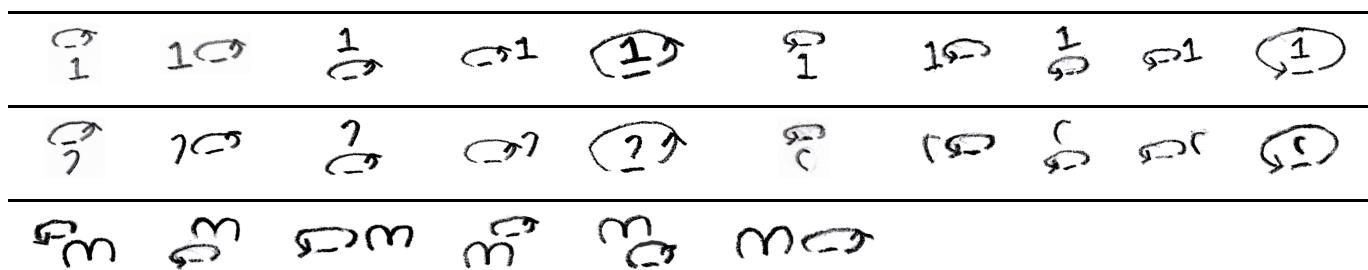


Finger Turn

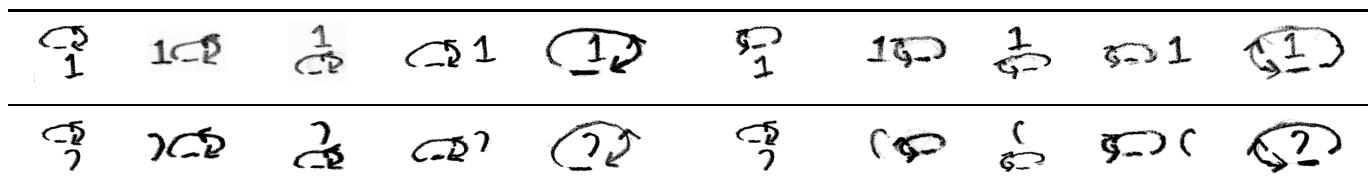
Finger turn (right / sideways in & out of keys / thumb only)



Finger turn (left / sideways in & out of keys / thumb only)



Finger turn (right / left / sideways in & out of keys / thumb only)



\overline{m}^{∞} m^{∞} \overline{m}^{∞} \overline{m}^{∞} \overline{m}^{∞} \overline{m}^{∞} \overline{m}^{∞}

Finger turn (forward)

3 3 3 3 3 3 3 3 3 3 3 3

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3 3 fm 9 m 3 fm

3 3 3 3

B^G m^G m^G B^G m^G m^G

Finger turn (backward)

16 38 35 f₁₃ (3) 7 3 38 32 f₃ (3)

१२ अ० १३ अ० १४ अ० १५ अ० १६ अ० १७ अ० १८ अ० १९ अ० २० अ० २१ अ०

8m 8m 8m 8m 8m 8m

3-3 3-3 3-3

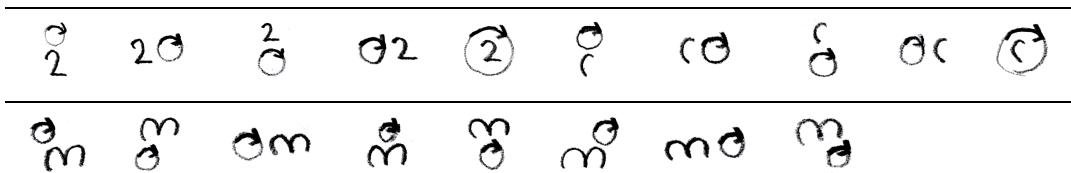
Finger turn (forward / backward)

4. 38 3 3 0 3 (3) 3 3 3 9 3 9 9 3 (3)

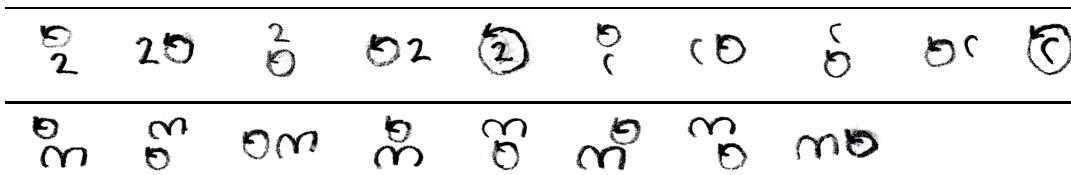
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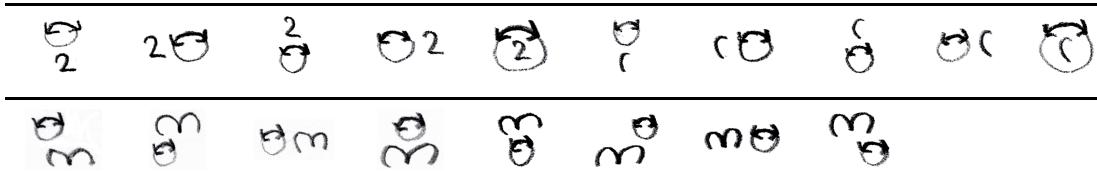
Finger turn (clockwise)



Finger turn (counter-clockwise)



Finger turn (clockwise / counter-clockwise)



Finger Turn Comment

Finger turning may coincide with finger moving,
but perhaps more of an emphasis on rotational motion.
Finger turning may happen over a pivotal point where the finger is attached.

Fingers may pivot over 2 axes:

- Forward in and out of keys
- Sideways facing you (finger wagging)

The thumb may pivot over another 3rd axis (depending on orientation):

- Sideways oriented in and out of keys

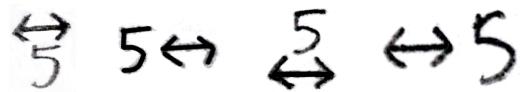
The fingers might not make full rotations, but partial rotation arcs.

Finger wagging may be aided by the friction of the other fingers on the key bed.

Finger Spread

Moving fingers wider away from each other stretching.

Finger spread (with number)



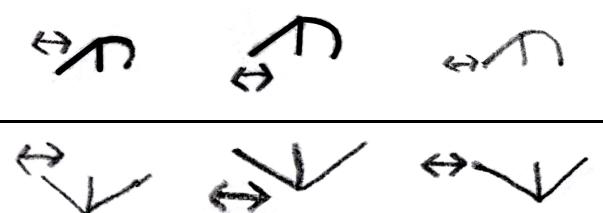
Finger spread (with symbol)



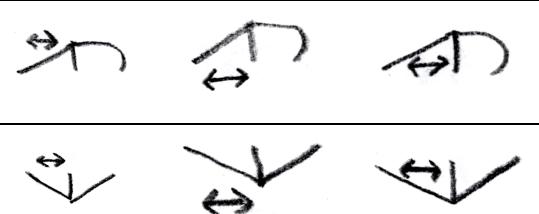
Finger spread (between finger numbers)



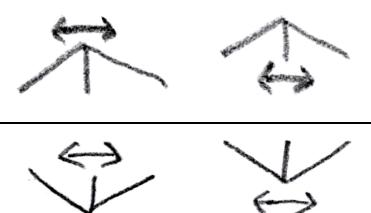
Finger spread (3 fingers, left finger)



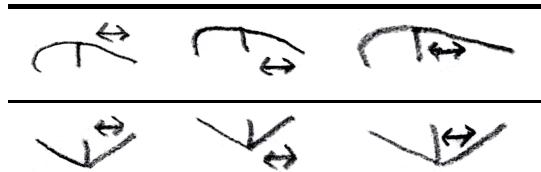
Finger spread (3 finger / between left / middle finger)



Finger spread (3 finger / middle finger)



Finger spread (3 fingers / between middle / right finger)



Finger spread (3 fingers / right finger)



Finger Stress

Tense all around, keeping stationary with force.

Tight Fingers	Loose Fingers
>5<	'5'
5	5
>6<	'6'
6	6
>7<	'7'
7	7
>8<	'8'
8	8
>9<	'9'
9	9
>10<	'10'
10	10

Composite examples:



Finger Enunciation

	Move fingers restfully
	Move fingers slightly



Move fingers normally



Move fingers exaggerated

Finger Switch

1|5

Switch finger (in place)

Part of existing fingering notation.



Switch finger (at different times)

At different times same key with different fingers.

Wrist

Wrist Position



With flat
fingers



Pronounced



Curved



High



Tilted (flat
fingers)



Tilted
(pronounced)



Tilted
(curved)



Tilted
(high)

Wrist Stationary



Stationary
(left-
right)



Stationary
(toward black /
white keys)



Stationary
(in / out
of keys)



Stationary
(composite)

Wrist Move



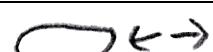
Wrist move
(left)



Wrist move
(right)



Wrist move
(right and left)



	Wrist move (into keys)		Wrist move (in / out of keys)		Wrist move (out of keys)
	Wrist move (toward black keys)		Wrist move (toward white keys)		Wrist move (toward black and white keys)

(These one-sided wrist moves may be similar to wrist turning:)

	Wrist move (into keys / left)		Wrist move (out of keys / left)		Wrist move (in or out of keys / left)
	Wrist move (into keys / right)		Wrist move (out of keys / right)		Wrist move (in or out of keys / right)
	Wrist move (toward black keys / right)		Wrist move (toward white keys / right)		Wrist move (toward black and white keys / right)
	Wrist move (toward black keys / left)		Wrist move (toward white keys / left)		Wrist move (toward black and white keys / left)

A composite, to show some flexibility:



Wrist Press

May be usually downward into the keys, not likely in other directions.

	Wrist press (variation 1)		Wrist press (variation 2)
	Wrist press (right)		Wrist press (left)

Wrist Turn

Wrist turn (right) / 'pivot'					
Wrist turn (left) / 'pivot'					

wrist turn (right and left) / 'pivot'					
wrist turn (clockwise)					
wrist turn (counter-clockwise)					
wrist turn (clockwise and counter-clockwise)					
Wrist turn (forward) / 'flap'					
Wrist turn (backward) / 'flap'					
Wrist turn (forward and backward) / 'flap'					

Implicit Wrist Turn

Wrist symbols might be optional for wrist turning.

	Implicit wrist turn (right) / 'pivot'		Implicit wrist turn (left) / 'pivot'		Implicit wrist turn (right and left) / 'pivot'
	Implicit wrist turn (clockwise)		Implicit wrist turn (counter-clockwise)		Implicit wrist turn (clockwise and counter-clockwise)
	Implicit wrist turn (forward) / 'flap'		Implicit wrist turn (backward) / 'flap'		Implicit wrist turn (forward & backward) / 'flap'

Wrist Stress

(Combined with wrist positions.)

Wrist tight (flat fingers)



Wrist loose (flat fingers)



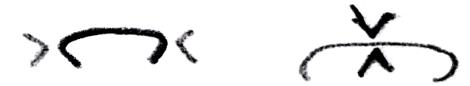
Wrist tight (pronounced)



Wrist loose (pronounced)



Wrist tight (curved)



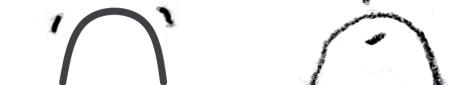
Wrist loose (curved)



Wrist tight (high)



Wrist loose (high)



Torso



Torso (+ arms)



Torso sway (right)



Torso sway (left)



Torso tilt forward



Torso tilt backward



Torso turn sideways (back and legs)

Arm



Arm outward (left)



Arm inward (left)



Arm placing torso in front of right hand

Elbow



Elbow sideways

Some Fingers Deeper In Keys

3 fingers:

	Flat Fingers	Pronounced Fingers	Curved Fingers
Mid finger deeper in keys	↑	↗	↷
Outer fingers deeper in keys	↗	↖	↷
Right finger deeper in keys	↖	↖	↷

4 fingers:



Flat / outer fingers deeper in keys



Curved / outer fingers deeper in keys



Curved / 3rd finger deeper in keys

Composite Examples

To demonstrate some possibilities for flexibility.



Fall in and then raise out of key



3 fingers: flat, pronounced and curved



Curved wrist flapping, mid finger pressed



Curved wrist hopping. 1st and last note pressed. Middle note moved toward black keys, pressed with 3rd finger.