BitPixel : JeongHo Park

Concept

A Sonification application plays on realtime camera captured image and mathematic conversion.

Description

This App plays a automatic note sequence. The note sequences are based on pixels sum of the iPad camera captured image.
When someone takes a picture from camera just touch on screen, and then a note sequence plays maximum 6 note same time.

Work process

1. A image from camera is converted as Canny effect. The view of the ipad LCD shows the canny effect.
2. The sum of the white pixels between the two black pixels is saved as decimal. It's like a time based sequence score.
3. The numbers (Decimal) is converted as 5, 6, 7, 8 (Octal) Base Number. It would be changed by a controller.
4. Every numbers of the converted base number play a MIDI note scale.
5. If the interval between sequence notes is bigger as a interval control value, the next note should not be played. This will be to play more complex or simple music sequence.

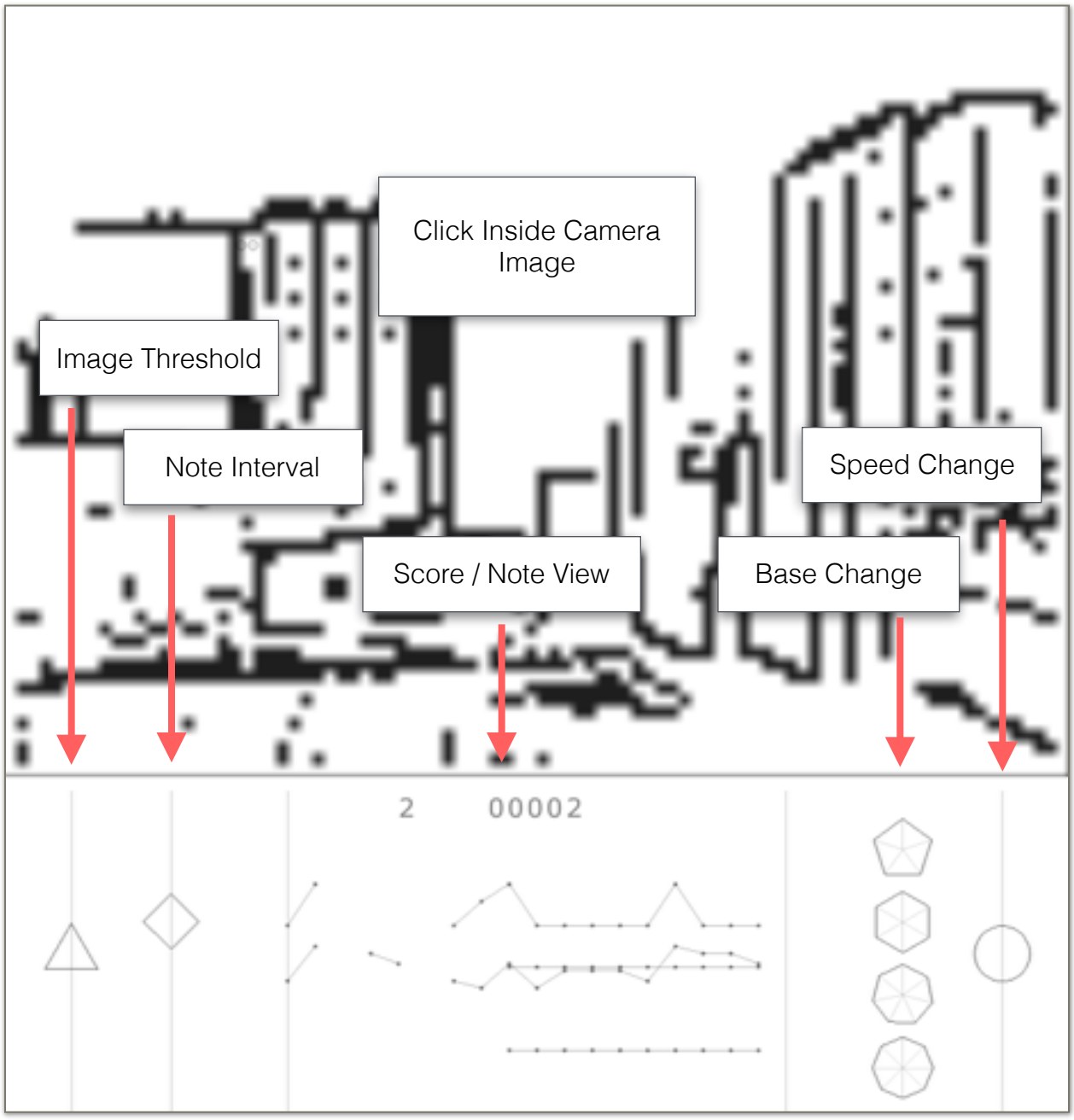
Example

White pixels sum is 1220 between a one black pixel and the other.
Decimal : 1220
5 Base : 14340
6 Base : 5352
7 Base : 3362
8 Base : 2304

(/ MIDI Note number)

	0	1	2	3	4	5
5 Base		1 / 86	4 / 81	3 / 55	4 / 45	0 / 36
6 Base		0 / 84	5 / 84	3 / 62	5 / 48	2 / 41
7 Base		0 / 64	3 / 79	3 / 86	6 / 62	2 / 40
8 Base		0 / 64	2 / 89	3 / 86	0 / 48	4 / 45

Interface


Click Inside Camera Image
Image Threshold
Note Interval
Score / Note View
Base Change
Speed Change
2 00002