

## ***PROVISIONAL APPLICATION FOR PATENT***

### **System and method for real time assessment of a picture quality, automatically taking the best picture, and ways to indicate quality**

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#### **ABSTRACT**

Adding to the provisional patent number 61/717,216 submitted on Oct 23 2012 by applicant Ishay Sivan, titled "System and method for real time assessment of a picture quality".

When the user presses the shutter button the device then goes into "taking picture mode" where it hunts for a minimum quality values for each parameter. Once all these quality indicators reach at least their minimum values, then the device will take the picture automatically without the user pressing again or timing the exact shutter himself.

After the picture is taken the user may be made aware of several quality indicators values or some of their totals.

In another embodiment, the device will take the picture automatically when it reach the minimum values as indicated here, even without the user needing to press the shutter. For example when the device will be standing still in a certain direction for a configured time, the device will assume it should get into "taking picture" mode by itself and may take the best picture it can according to the above.

To the system and method described in provisional patent 61/717,216, we add an indicator to the user about the a total or total of some quality indicators by a colored frame around the live feed of the scene as shown on the screen of the device. This colored frame may be used in the thumbnails view of the list of picture already taken to indicate which picture are good and which are not.

#### **BACKGROUND OF THE INVENTION**

Adding to the provisional patent number 61/717,216 submitted on Oct 23 2012 by applicant Ishay Sivan, titled "System and method for real time assessment of a picture quality".

#### **SUMMARY OF THE INVENTION**

##### **1. Automatically taking of the best picture**

The idea here that the user will not need to hit the shutter button on the exact moment he is indicated the picture is at its best quality as indicated by the device software. He will be needed to pick the scene and composition, indicate he is ready and wait for the device to find the exact moment his hands shake below some threshold or that he leveled the device to the horizon properly. These are only two quality parameters, but more may be used.

"Taking picture" mode can be indicated to the user by a blinking shutter button or changing its color, possibly accompanied with a sound.

In another embodiment the user will not need to indicate he is ready by first pressing the shutter, but the device will assume the user is ready all the time, or may wait for the device to be pointed at some point in space for some configured time. For example, the user pull the device out of his pocket and point it to the desired scene and hold it their for a second. The device accelerometer and gyro can see that the device was in movement and for a few second and then held relatively still in space. It will assume the user pulls the device out of his pocket in order to take a picture, and go into "take picture" mode, waiting for the quality indicator to be above the threshold and then take the picture automatically. The user hear the the sound of a picture been taken and return the device to his pocket. A shake gesture (available in mobile OS like iOS) can mean "delete the picture and start again".

## 2. Colored Frames as an indicator of the picture quality.

While the device calculates the quality of each parameter, he is calculating a total and a basic total of these parameters.

A total is calculated as described in provisional patent 61/717,216. A basic total is calculated similarly, but not with all the parameters. A basic total can be the shake, focus, level and details quality indicators for example.

A frame around the live feed of the picture may be shown to indicate quality. For example green is good, yellow not so much and red is bad.

The other indicators as indication for under/over exposed areas (highlights&shadows) my be shown by a indication like an icon or text saying "under/over exposed quality is below a threshold".

There may be a different icon for different quality values. For example a red over exposed ocon for really bad (say over 40%) and yellow for between 40% and 20%.

This idea of colored frames may be used after the picture is taken. Either individually or in a list of thumbnails of pictures. This will help the user decide what picture to pick for his needs (delete or share for example)

### **BRIEF EXPLANATION OF DIAGRAM 1**

In Figure A we see a green frame around the picture indicating a high quality. You can see the image is share and clear.

In Figure B we see a red frame around the picture indicating a low quality. You can see the image is blurred and not clear.

In Figure C we see the thumbnails view of picture that where already taken.

The colored frame around each thumbnail indicate the picture quality as it did in figure A and B



Figure A:  
High Quality

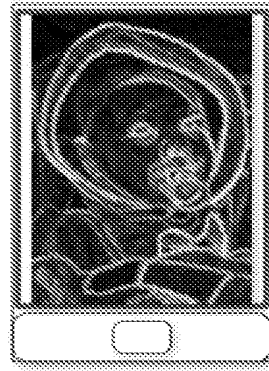


Figure B:  
Low Quality

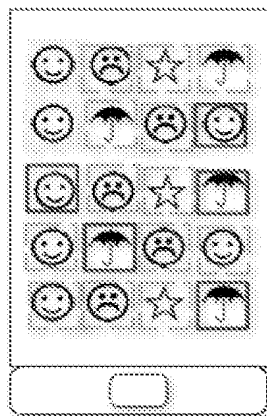


Figure C:  
Picture Quality  
Indicated By Frame  
Color Or Dashed Line

## **Claims:**

What is claimed is:

1. Use of the system and method for real time quality assessment of a picture to take the picture as when a certain quality level is achieved after the user indicated he wants to take a picture by pressing a button
2. Use of the system and method for real time quality assessment of a picture to take the picture as when a certain quality level is achieved after the user indicated he wants to take a picture by holding the device in space without moving it too much
3. indicate the picture to be taken quality by use of a colored frame
4. indicate the picture to be taken quality by use of sound
5. indicate the picture to be taken quality by use of graphic bar
6. indicate a saved picture quality by a colored frame

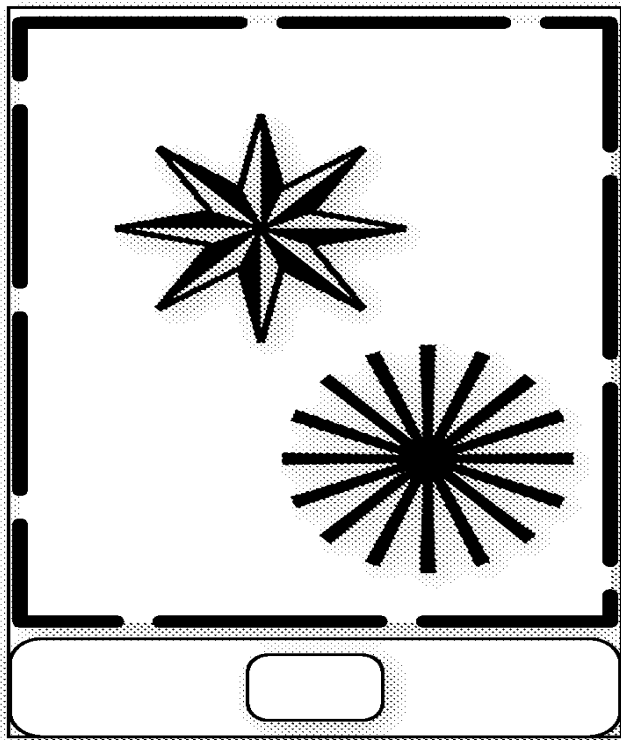


Figure A:  
High Quality  
(Long Dashed  
represent Green)

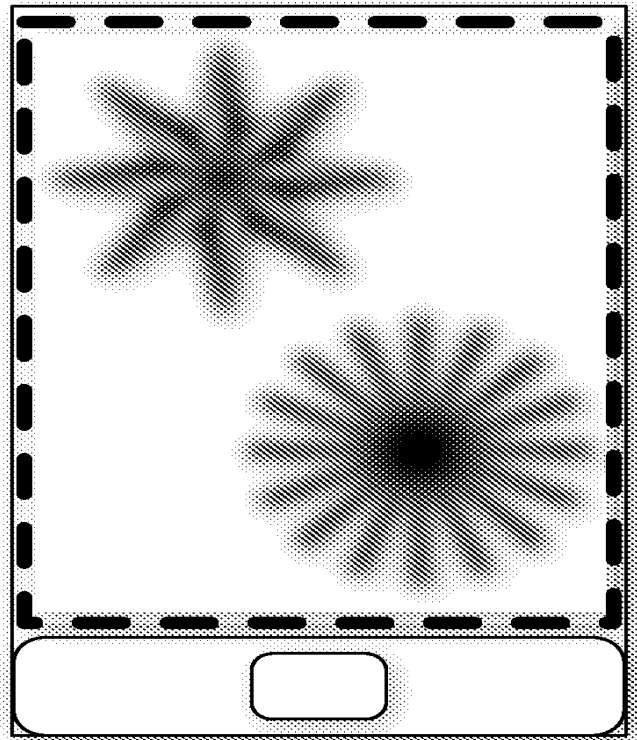


Figure B:  
Low Quality  
(Dashed lines  
represent Red)

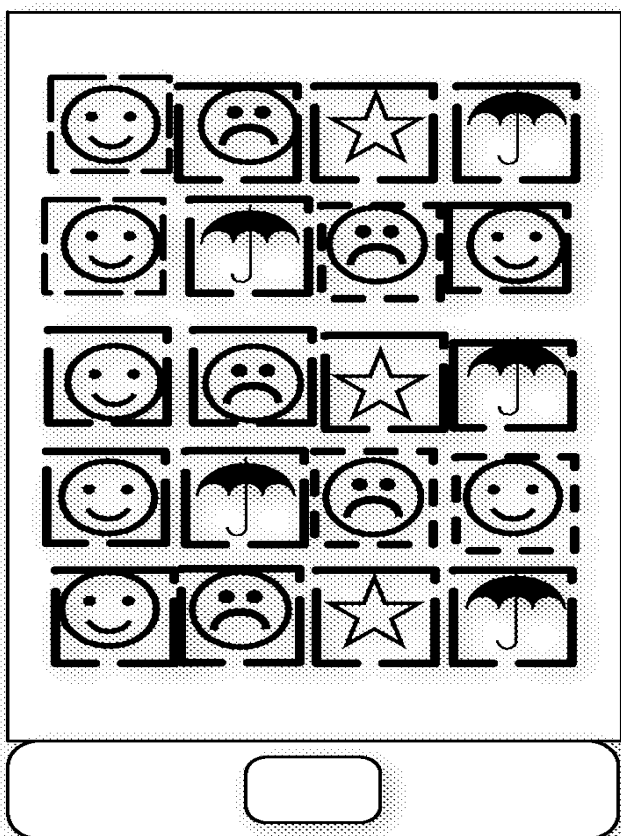


Figure C:  
Picture Quality  
Indicated By Frame  
Color Or Dashed Line  
(Different dashed  
lines represent  
different colour)



Figure A:  
High Quality

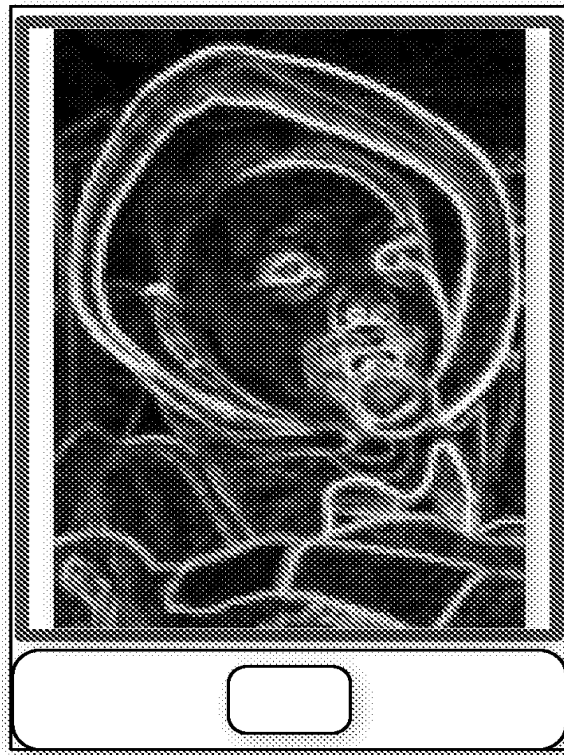


Figure B:  
Low Quality

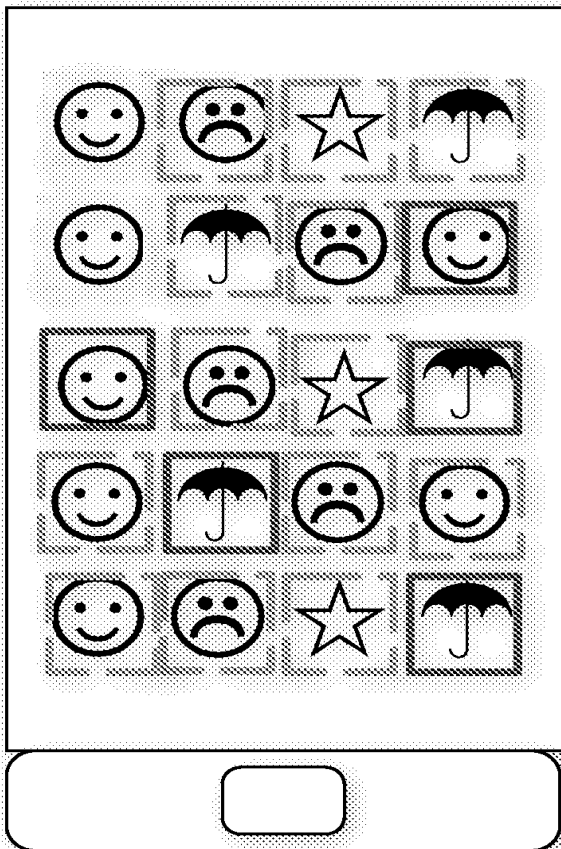


Figure C:  
Picture Quality  
Indicated By Frame  
Color Or Dashed Line