

Virtual Calculator (using OpenCV Python & Computer Vision Technology)

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Abstract: The objective of work to make a software to reduce the task. Main scope of this project is we don't need to touch calculator or screen. We can calculate the problem without touch using finger moment. With the help of finger moment on camera we can calculate the problem in calculator.

I. INTRODUCTION (HEADING I)

My idea is that to make a one type of software that name is Virtual Calculator. Which is possible with computer vision technology and OpenCV python and tool is PyCharm.

Main scope of this project is we don't need to touch calculator or screen. We can calculate the problem without touch using finger moment. With the help of finger moment on camera we can calculate the problem in calculator.

II. APPLICATION DESING

My software name is Virtual calculator in that software when we run the program in our system then camera is automatically open in our system. And we can see the calculator at upper corner which is created by our code.

In that Calculator I Provide Numbers Like 0 to 9. And provide buttons like multiplication (*), division (/), minus (-), plus (+). And two more additional buttons Is their which is decimal point (.) and for the calculation (=) button is their. And one more slot is empty which is for answer after the calculation. With the help of C button on keyboard we can erase all the answer or Numbers.

7	8	9	*
4	5	6	-
1	2	3	+
0	/	.	=

III. WORKING OF THE APPLICATION

In that calculator when I doing finger moment in front of camera calculation is automatically done without touch on screen or calculator. And answer is print on above of the Calculator. When I press C on keyboard answer or Number or Operator is Erase Automatically.

When I click on any Numbers (0 to 9), Numbers is automatically print on above of the calculator which is slot of the answer.

When I click on Operator (+), Addition of Numbers is automatically print on above of the calculator which is slot of the answer.

When I click on Operator (-), subtraction of Numbers is automatically print on above of the calculator which is slot of the answer.

When I click on Operator (*), multiplication of Numbers is automatically print on above of the calculator which is slot of the answer.

When I click on Operator (/), division of The Numbers is automatically print on above of the calculator which is slot of the answer.

When I click on Operator (=), calculation of Numbers is automatically print on above of the calculator which is slot of the answer.

Advantages of virtual calculator:

1. Main scope of this project is we don't need to touch calculator or screen. We can calculate the problem without touch using finger moment.
2. With the help of finger moment on camera we can calculate the problem in calculator.
3. we can use this type of technology in online examination or anywhere.
4. We can use in any online examination software like PEXA

IV. CONCLUSION

- In conclusion, we don't need to touch calculator or screen. We can calculate the problem without touch using finger moment.
- With the help of finger moment on camera we can calculate the problem in calculator.

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