

Sunday, 21 April 2024

## STEPS TO RUN THE PROJECT

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### Use Visual Studio Code or PyCharm

Install Dependencies/Extensions:

python 3.9 or above

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### Install Libraries:

Using the following commands install mediapipe , opencv and scipy

pip install mediapipe

pip install opencv-python

pip install scipy

Do same for numpy and math if not already installed

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### To run the program:

python filename.py

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### Output:

1. Both Hand Detection (Fully Functional).
2. All Connection Points on both the hands.(Open, Close, Front, Back).
3. 10 fingers connection points to terminate the program.
4. Any point among the 10 connection points touches the security line, the **camera will turn off** (maximum accuracy achieved) and an **alarm will ring**.It will display which finger touched , and will shut down the system
5. Full Body Detection (Only Holistic).
6. All possible full body points are connected.
7. Connection points Visibly Separating the different parts of the body.
8. Red Line and Blue Line for Extra Safety.
9. Box around hand for dedicated movement.
10. Confidence Values and FPS Values.
11. Output of which finger connection point exactly touched the line (Real Time Detection)  
on terminal
12. Only Skeleton Mode Output enabled.

**After the normal REALTIME Output, PRESS Q or M to toggle to SKELETON MODE.**

**Man and background is hidden, only Skeleton appears**