Multimedia Computing
(SOC4020)

Term Project

Hand and Finger Gesture Recognition in Computer Vision using Python and OpenCV

Submitted by:

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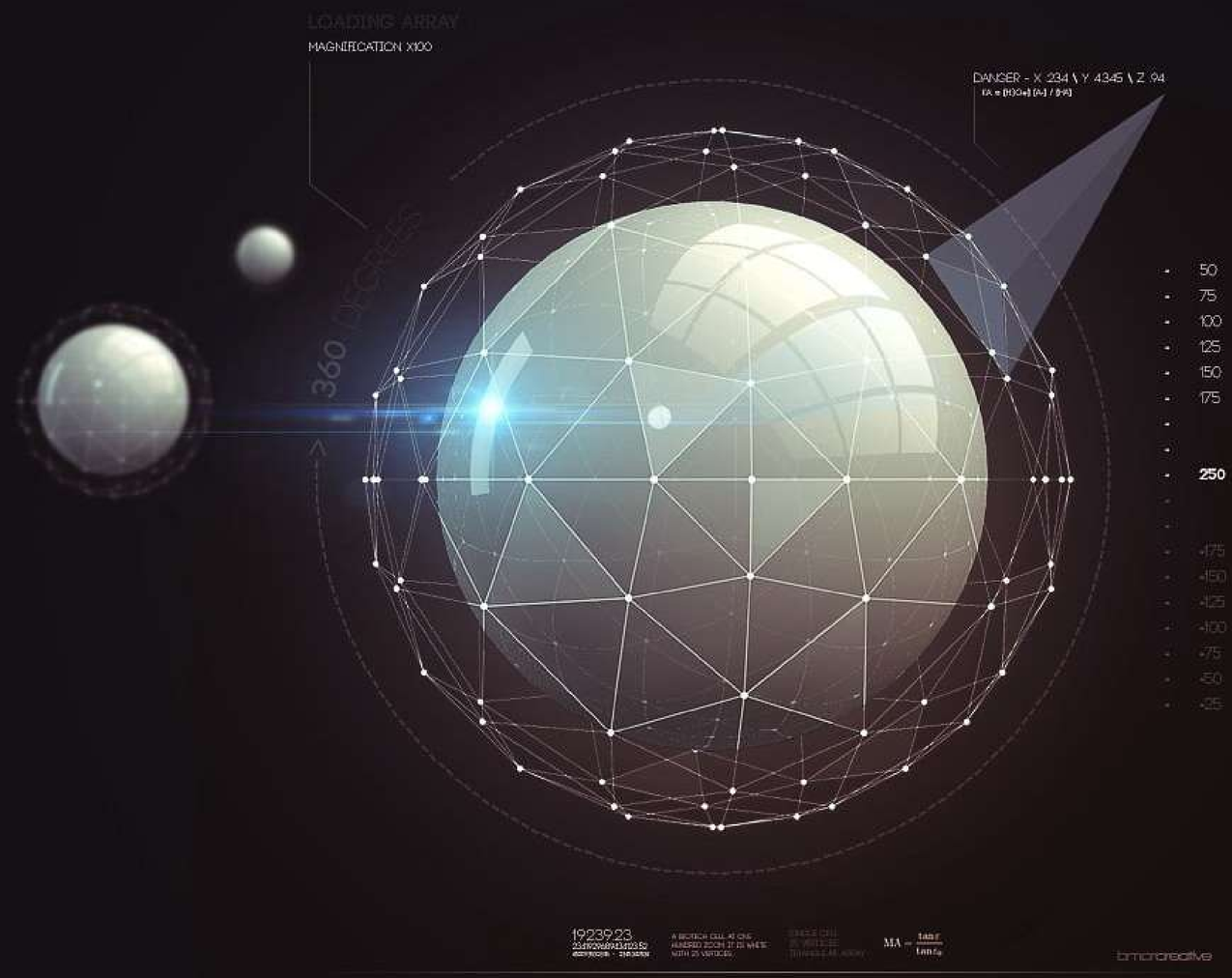

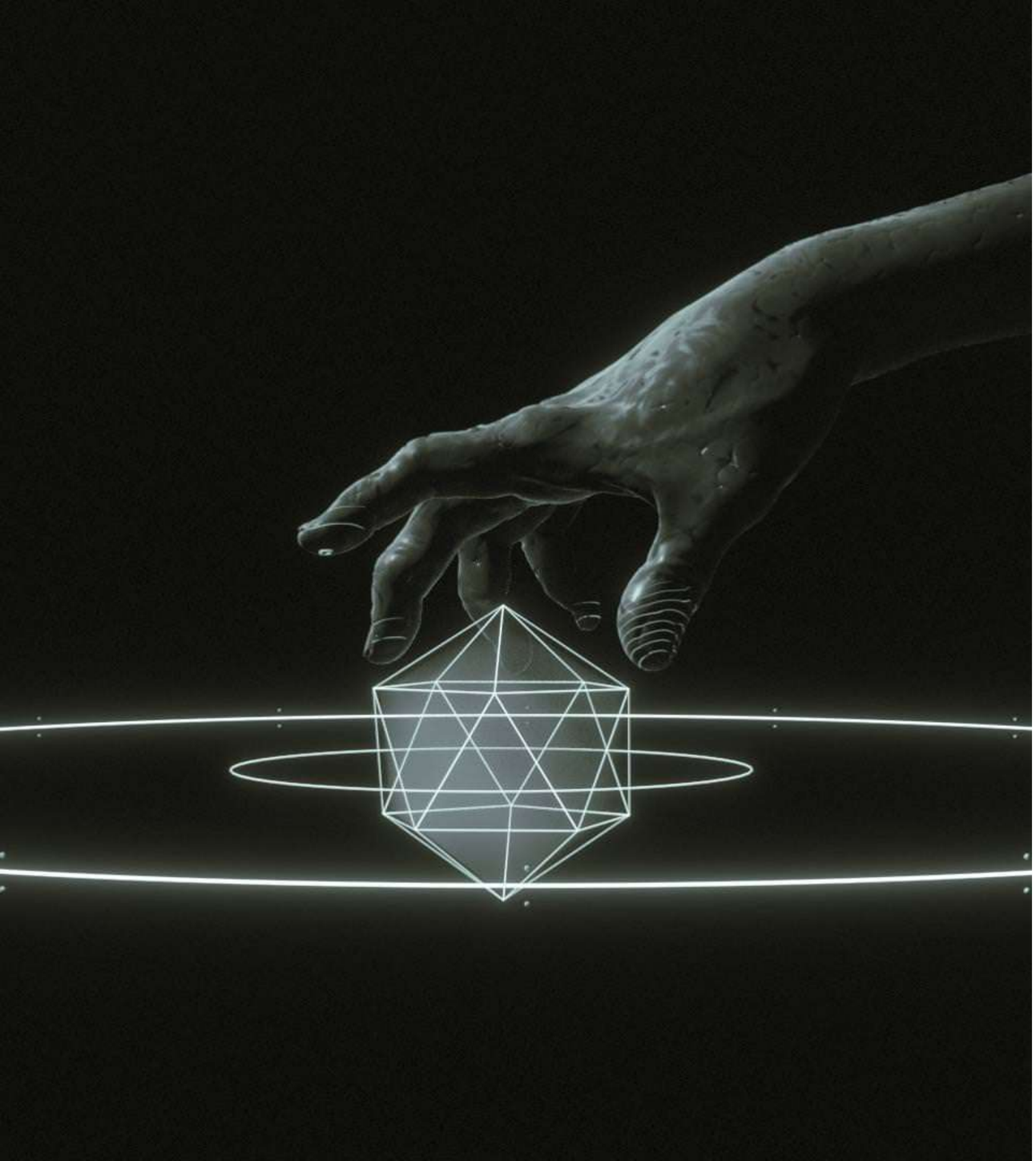

Outline

- Problem definition
- Solution idea
- Advantages
- Drawbacks
- Future improvements

PROBLEM DEFINITION

In this project, I focus on remote controlling the devices with hand gestures and counting up the fingers. It will solve the problem of Remote Controlling when it is not working or when they are lost. In recent years, the gesture control technique has become a new developmental trend for many human-based electronics products. This technique let people can control these products more naturally, intuitively and conveniently. In this paper, presents some low-intricacy calculations and motions to lessen the motion detection multifaceted nature and be increasingly reasonable for controlling constant PC frameworks.

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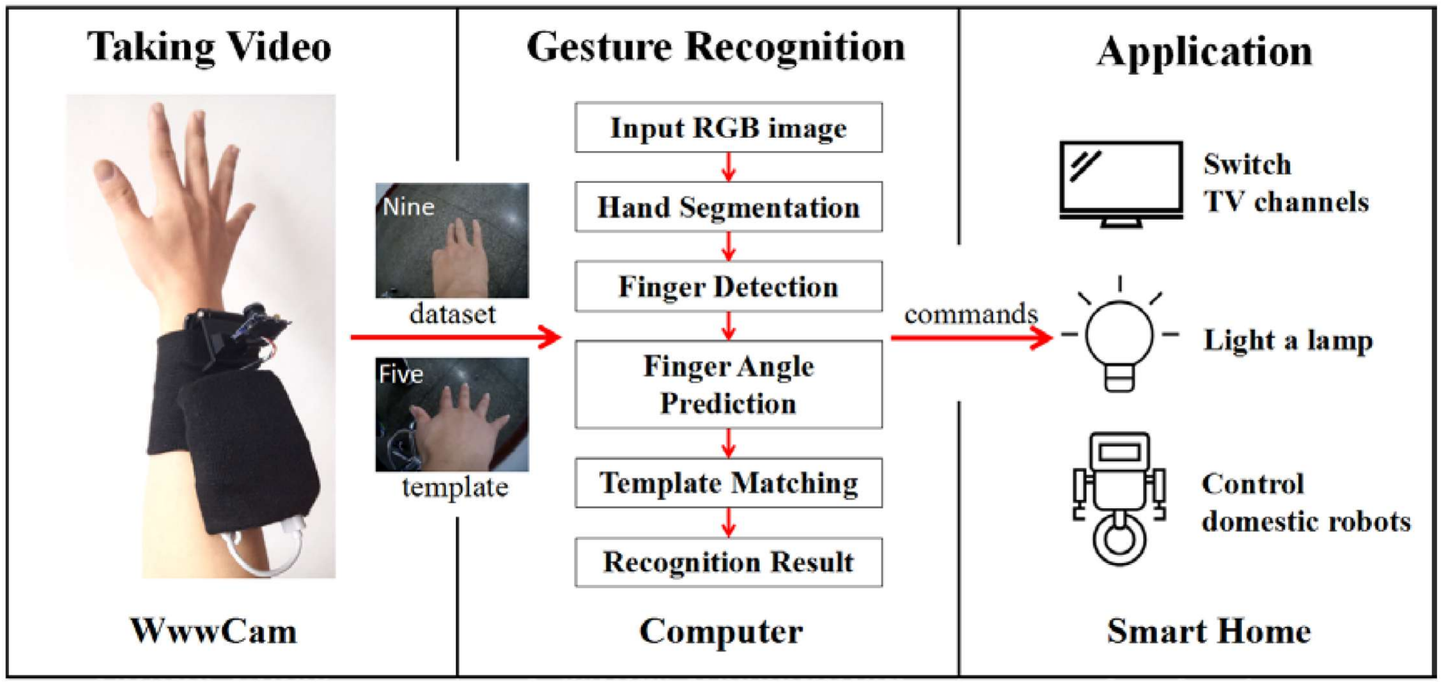
SOLUTION IDEA



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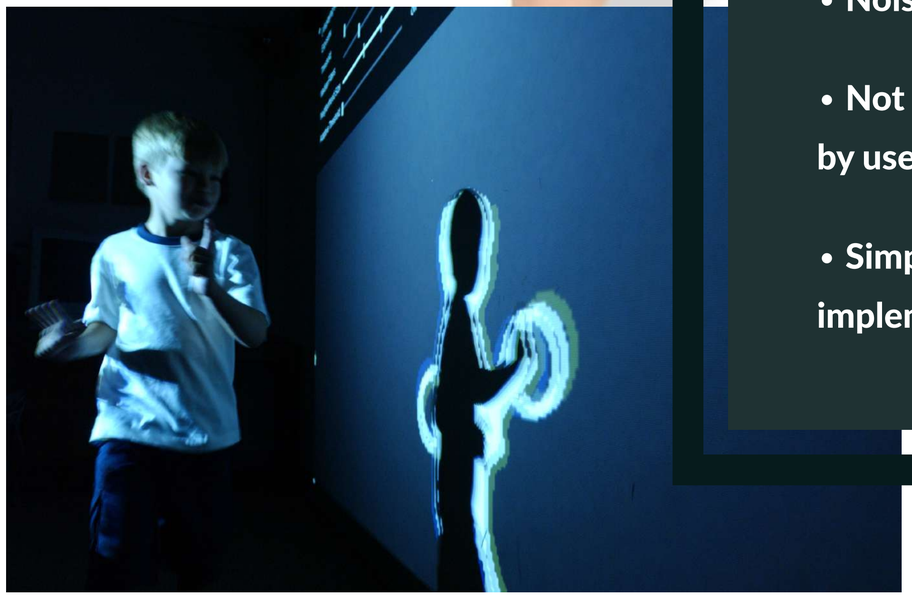
ADVANTAGES



- User friendly
- Gesture patterns are not critical
- Noise filtering is not required
- Not need any advanced training by user side
- Simple, fast and easy to implement

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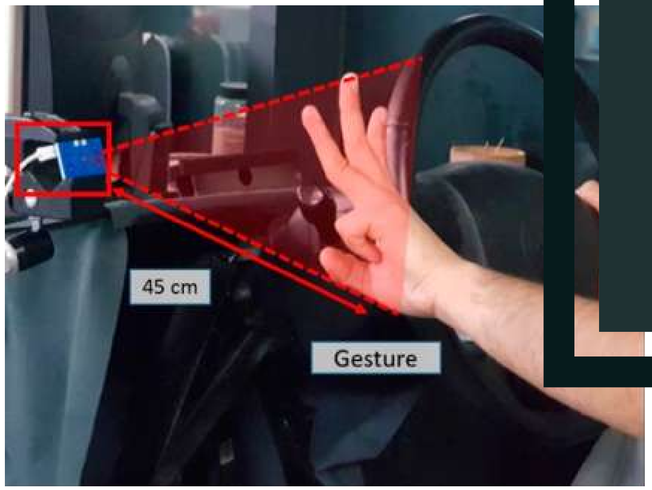
DRAWBACKS

- Wrong object extraction
- Correct distance between user and camera
- Can only see from a certain point of view
- Ambient light affects to detection threshold



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FUTURE IMPROVEMENTS

- Using more compound ML techniques
- Try to build complete product
- Correction the programm characteristics
- Running the device with least power

References

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THANK YOU FOR ATTENTION!