

FYP IDEA

Group member:

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Gesture control game with computer vision and machine learning

Project Motives:

To avoid or minimize the use of Graphical User Interface (keyboard and screen-touch) in future. With help of Ai we are trying to create system with help we could control games with human gestures and body expressions.

Project dependencies:

1. Computer vision (To detect hand)
2. machine learning (make predictions for upcoming matches)
3. Web development with database (For user interference and data storage)
4. Game development

Python libraries use:

- Mediapipe: will use for Hand Tracking
- Opencv: opencv will help in image processing
- TensorFlow: Tensorflow will help in understanding the hand gestures.

Web development:

- Django
- Django rest Api's

Database:

- Mysql data

Machine learning part:

- Player previous matches performance data will use in production of next matchscore.

Reference:



Inspired from "Ready Player One". In "Ready Player One," there are different ways that players manage to walk and run through in a game through virtual reality, while staying in place in the real world. Wade uses an omni-directional treadmill that he control with his Hands, feet and other body parts which allows him to travel in 360 degrees, at any speed he likes.

YouTube: <https://youtu.be/viSM4UbpG2Y>
<https://youtu.be/dVjAjQAeYtM>

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