

## Virtual Reality ( Using Python )

### Virtual Reality Overview

- What is virtual reality
- virtual reality platforms
- softwares used for VR applications
- Unity for VR
- Unreal Engine for VR
- WorldVizVizard for VR

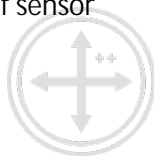
### Virtual Reality Core Components



- 3D Models
- Model Creation tools
- Model Creation
- Model Formats.
- Actions
- Action objects
- creating action and applying action.
- Avatars
- Avatars Creation and animation avatars
- Actions and Tasks overview
- task and actions overview
- create a task of scheduled interval
- creating a action of move an spin

#### Proximity Sensors Overview

- Proximity manager
- proximity target
- proximity events
- Types of sensors(Normal sensors & Area sensors) Bounding Box
- Bounding Sphere
- Basic Script of sensor



#### Using callback,IndividualCallBacks

- registering callbacks
- collision Event
- basiccollision event example.

#### ViewPoints

- What are viewpoints



- MainView
- Grab Main View

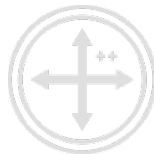
## Device Support

- Head and Hand Motion Tracking
- Head Mounted Displays
- CAVE, Powerwall, and 3D Screen
- Full Body Motion Capture
- Augmented Reality
- Eye Tracking
- Hand Controllers

## Stereos and Displays Over view

- Inter-papillary distance (binocular parallax)
- Field of View
- Fusion / Fusion Distance
- Screen distance

## Input Devices for VR



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TECHNOLOGIES  
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- Standard Devices
- Gaming Devices

## VRPN

- Importance of VRPN

## HardWares and Trackers

- Trackers
- Inputs
- Display
- Transports
- Tools
- Avatars.



- configuring inputs
- displays, display, tools
- configure interaction

## Project

Developing a Virtual Reality with all hardware and trackers components.

