ViseoConference GoogleVR

Rivoal Alice Zennouche Douria

Description of our project

3D Immersion Real time communication :



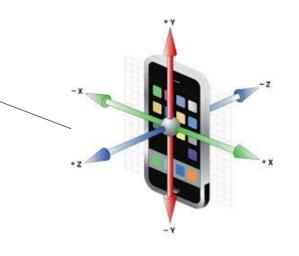


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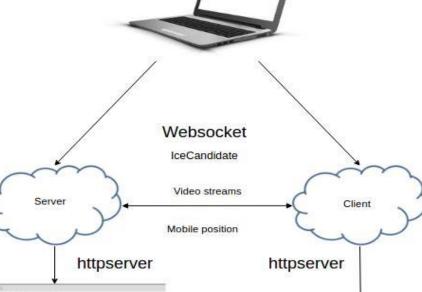
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Architecture



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Used Technologies



WebSocket

Enables the client to reach a server





WebRTC

- Used to make real time communication such as video calls.
- Enables two clients to communicate.
- Uses webSockets to make the first connection.
 Uses RTCpeerConnection to send flux back and forth.





Naomi (Caller)		Signaling Server	Priya (Callee)	
Web App	Web Browser		Web Browser	Web App
Event: icecandidate	Generate an ICE candidate represented by an SDP string			
handleICECandidateEvent() Receives the candidate and sends it to Priya's client through the signaling server as a "new-ice- candidate" message	Message: "new-ice-candidate"	on.message() Receive "new-ice- candidate" message and forward it to Priya	Message: "new-ice-candidate"	 handleNewIceCandidateMsg() 1. Create an RTCIceCandidate object using the SDP provided in the candidate. 2. Deliver the candidate to Priya's ICE layer by passing it to RTCPeerConnection.ad dIceCandidate()

RTCPeerConnection(IceCandidate)

HTTPS

- Generated a certificate that we embedded in both clients
- It allows only the machine in which the same certificate is provided to receive the video flux.



Control the servomotor (Camera)

CylonJs

JavaScript framework for robotics and physical computing using Node.js.



Gort

- Find out the connection info and serial port address
- Allow to upload firmata to the arduino
- Make the connection to be able to communicate with the arduino using serial port connection

Arduino

An open-source electronics platform based on easy-to-use hardware and software

Phone's motion data



Results

Thank you for your attention!

Any questions?

