

AUGMENTED REALITY IN TRANSBRONCHIAL NEEDLE ASPIRATION

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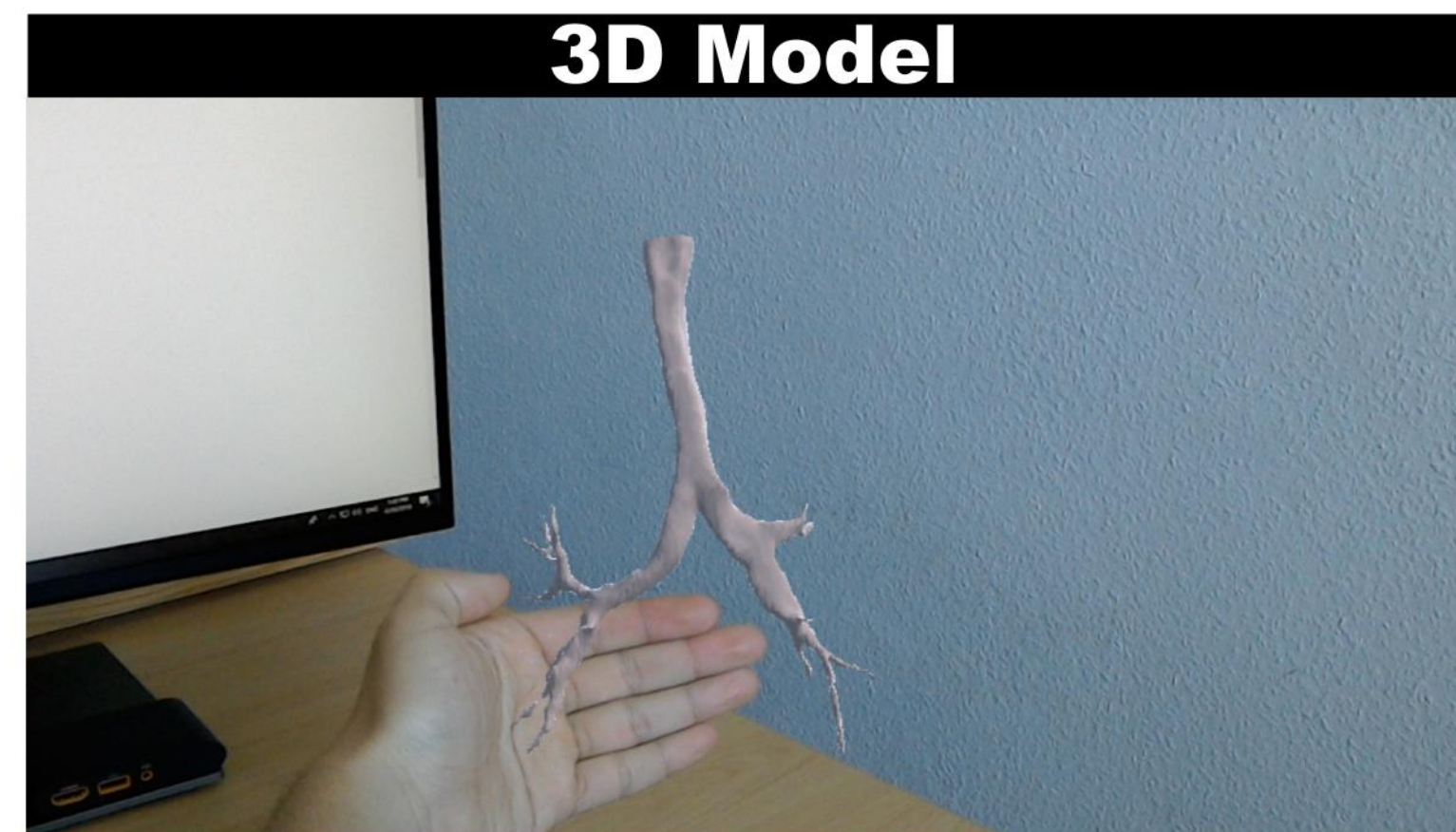
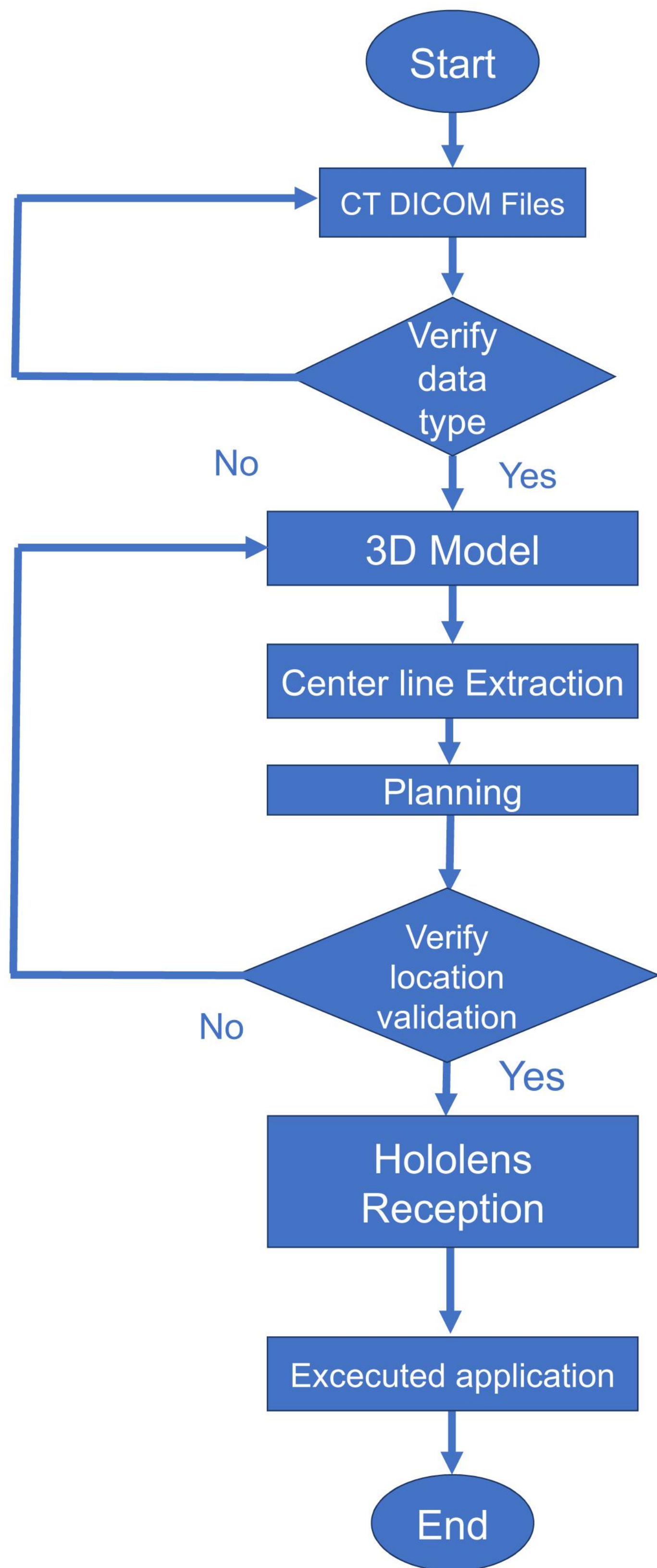


Figure 3. 3D model of the Bronchi



Figure 2. menu and video stream

- The video signal from the bronchoscope and/or ultrasound is intersected and fed into a PC through a frame grabber card.
- For security purposes the PC is part of a self-contained local area network (LAN).
- A wireless router is connected to the same network establishing a required WLAN connection with the Microsoft® HoloLens.

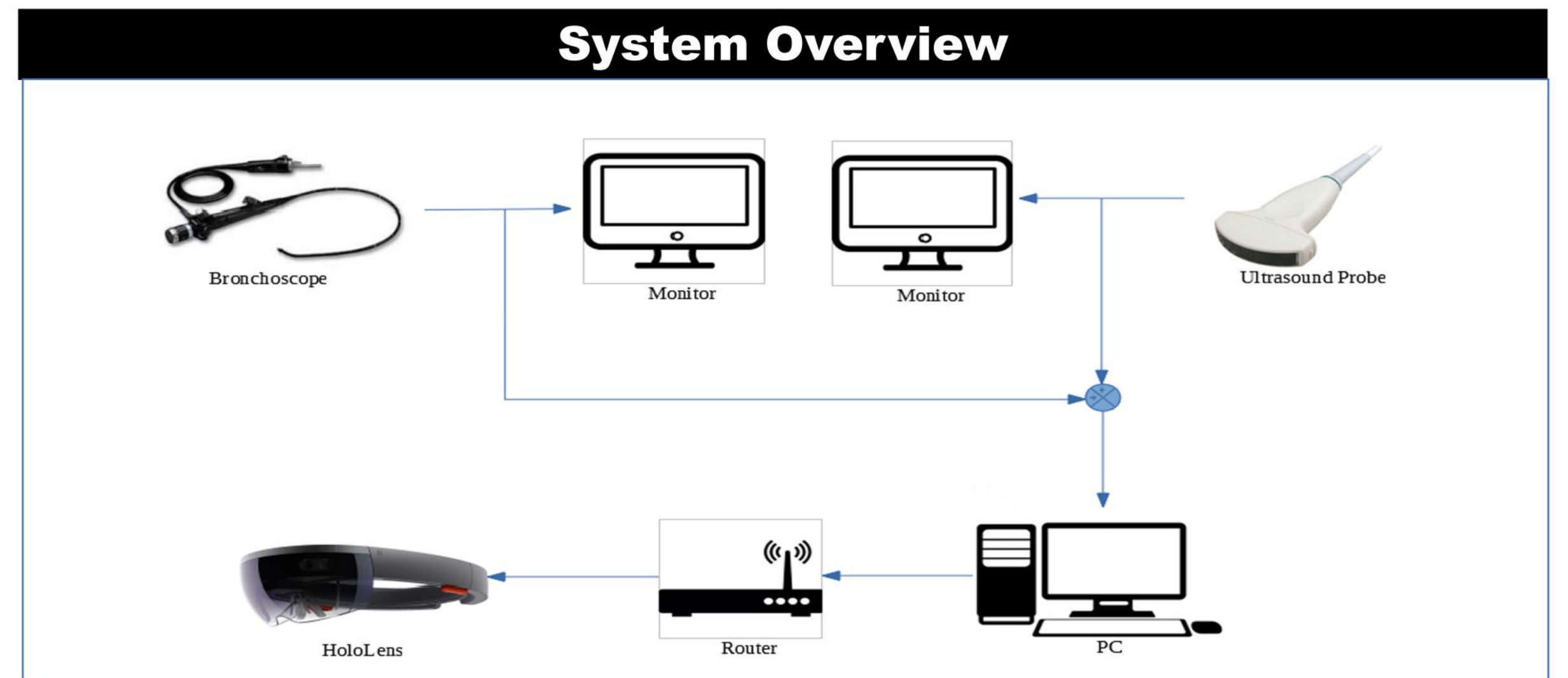


Figure 1. System Overview

- LAN allows full control over the communication between the PC and HoloLens, the IP-address range and the transmission speed.
- Using FFMPEG and a private network IP-address, video stream can be forwarded from the PC to the HoloLens.
- For the HoloLens an application was written to visualize and control the video.