### ABSTRACT:
Nowadays, communication between doctors and first responders during emergency situations is limited to voice and video conferencing. This limits the amount of critical information that a doctor can interpret, which can mean the difference between life and death of a patient. Our goal is to increase the efficiency of communication between them. We propose an augmented reality (AR) station for the first responders and a virtual reality (VR) station for the doctors. The first responders’ station will scan and send 3D data to the doctors in real-time and the VR station will create a 3D reconstruction so doctors may interact with it. Any feedback provided by the doctors will be sent in real-time to the first responders. With the proposed framework, the efficiency of the communication between first responders and doctors will drastically improve.

### BACKGROUND:
Telemedicine technology began in the late 1960’s and early 1970’s when the NASA space program provided guided medical treatment to astronauts during space flights. [1]

Telemedicine was first used in a disaster during the aftermath of the 1985 earthquake in Mexico City. [2]

One of the first places to have a large center for real-time consultation services for the general public was the University of California, Davis Health System within its California Telehealth Network. [3]

Today, there are 14 Telehealth Centers across the United States dedicated to enhancing telemedicine. [4]

### FOCUS:
Create and integrate a Graphical User Interface (GUI) for zSpace to assist doctors in interacting with the 3D reconstruction created by zSpace.

### TOOLS:
**Graphical User Interface (GUI)**
A library to create a GUI

**Virtual Reality (VR)**
- zSpace: 3D VR Display

**MYGUI:**
Comes with pre-made templates

**ZSPACE:**
An off-the-shelf product.
A SDK is available to developers.

**Special Head Tracking Glasses:**

**Stylus:**

**COMBINE:**
Integrate MyGUI into zSpace

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### RESULTS:
Placement of buttons optimize user experience.
Icons easily communicate the purpose of a button.
Color scheme reflects the state of the buttons

### FUTURE RESEARCH:
Testings with collaborating partners
Receive feedback on the functionality of the interface

### REFERENCES:

### SUPPORT INFORMATION
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