

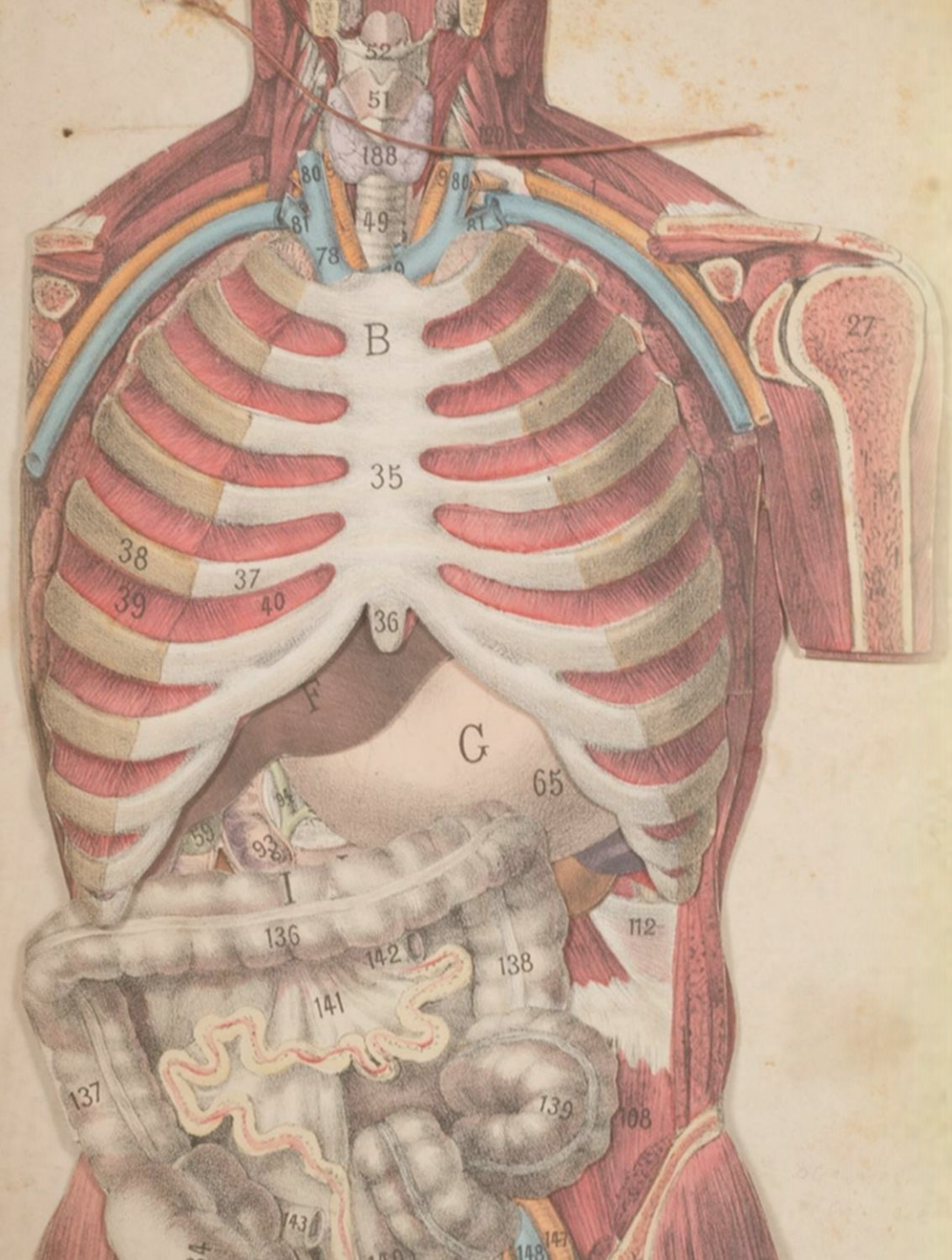
Anato-See

[Working Title]

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IGME.690.01

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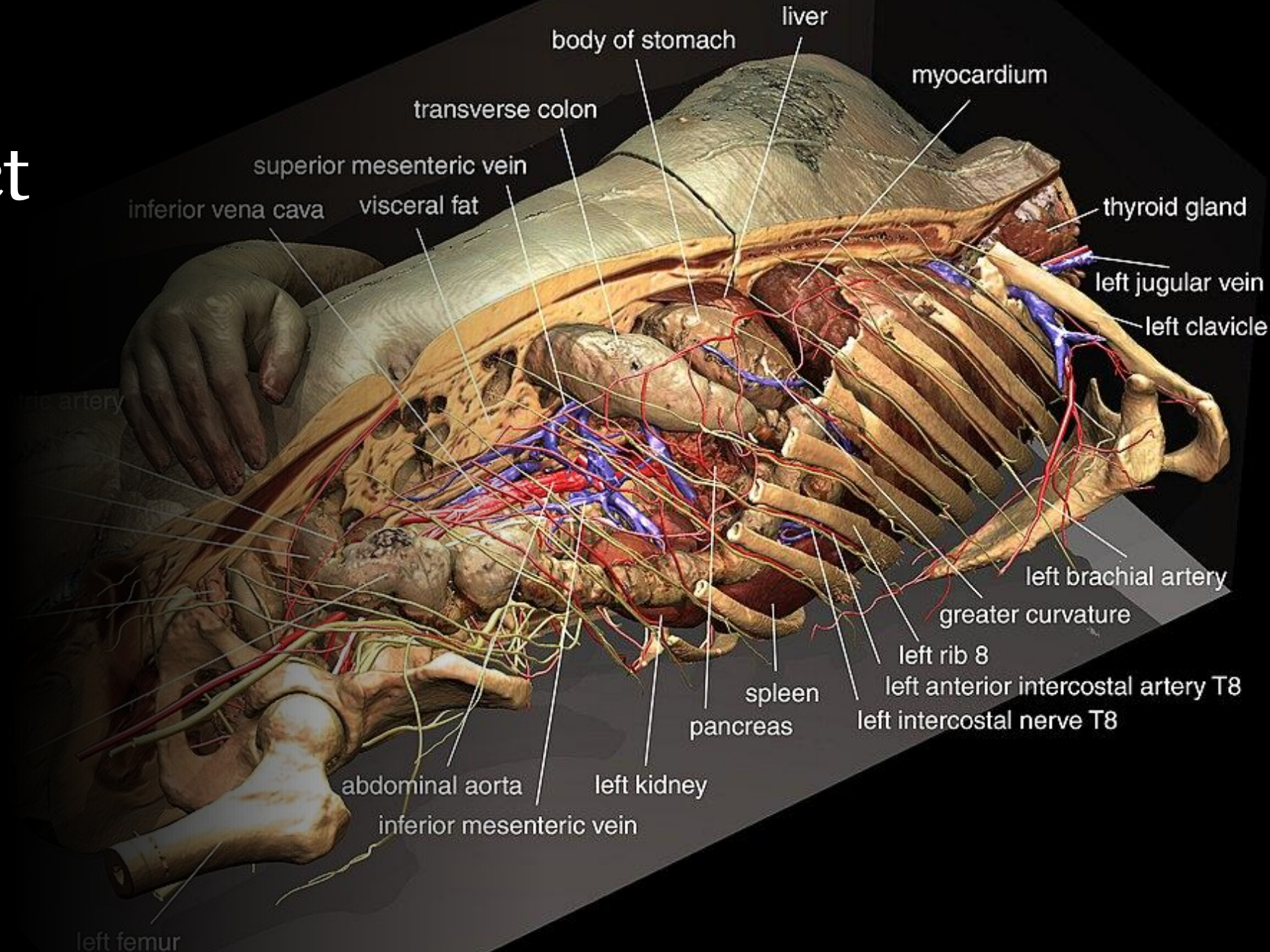


Core Idea

The human body is 3D. But there is the limitation of 2D when it comes to textbooks, posters, and any drawings of the human body. Yes, there are indeed models but most of stagnate and cannot be taken apart and explored. And those that can the pieces always get lost which leaves it incomplete. Even with models there is a limitation of only some organs being able to get taken out and observed.

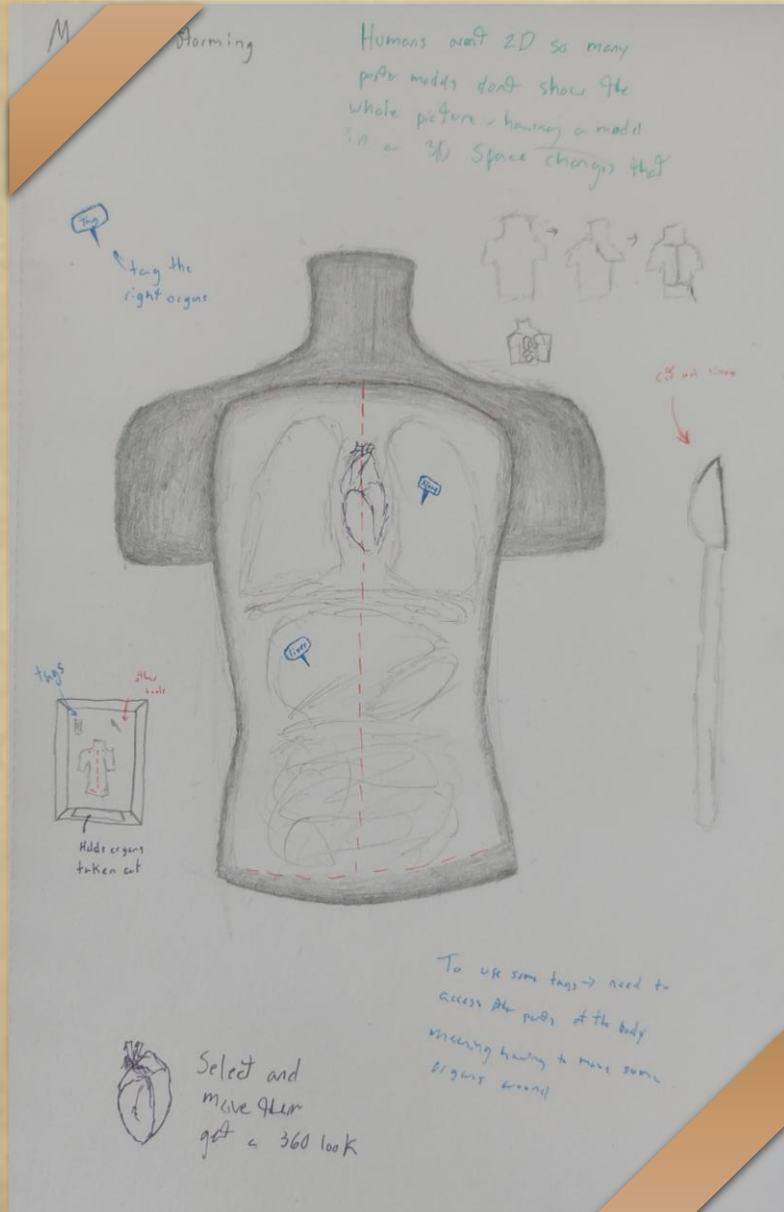
The Visible Human Project

In 1995 a male and female cadaver were cut into thin slices and then were photographed and digitized. Using VR application this allowed people to look at a model of a human and visually explore the cross-sections of the human body. With this project done it was discovered that there were several errors in anatomy textbooks relating to males.



The Project

- Knowing the struggles of 2D textbooks, lacking physical 3D models, and the limitations of the Visible Human Project the creation of an interactive 3D model of the human body is the goal of this semesters project
- This serves as an education purpose and with enough work done on it can spread to other XR applications
- The goal would be to make studying accurate 3D anatomy more accessible and could reduce the use of cadavers in hospitals to help manage cost.
- However, for this class the project will be scoped down to just focus on the torso and the main organs in that location



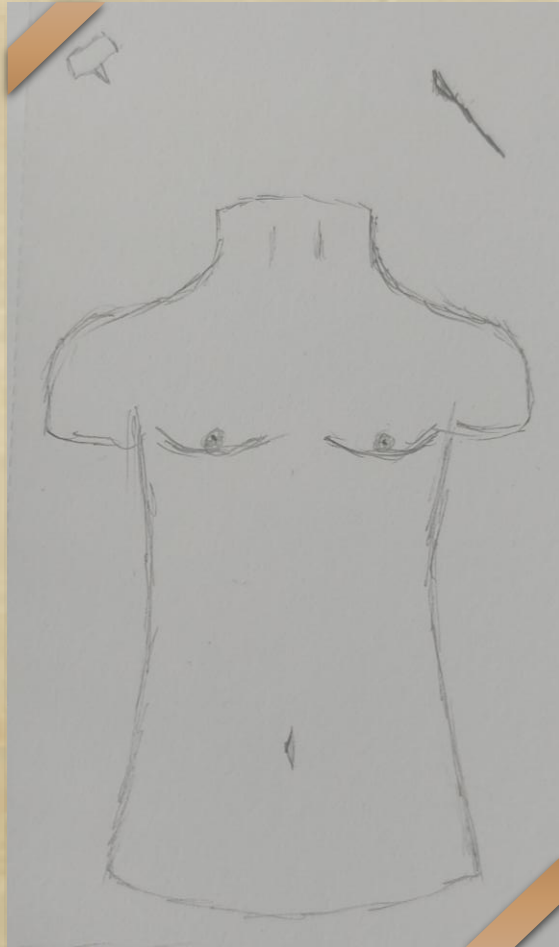
XR application

- Looking Glass Portrait
 - Using the looking glass holographic display to allow it to be not only interactive for the active user but allows people around to passively utilize the experience
- Leap Motion Controller
 - Tracks the movement of the user's hands allowing for interaction with the looking glass portrait

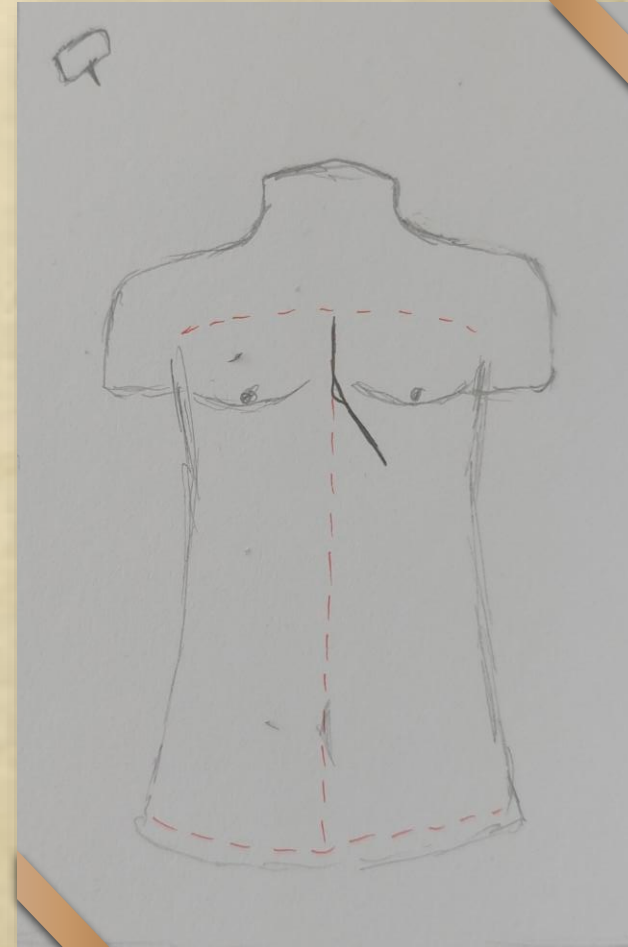
Constraints with hardware

- The looking glass portrait has a relatively small display screen.
 - Having to use the space without overwhelming the user.
 - I am concerned about having enough space and keeping the amount of detail I desire with the project.
- A larger size looking glass could fix this issue
 - But then there is the monetary issue that comes with that.

User storyboard

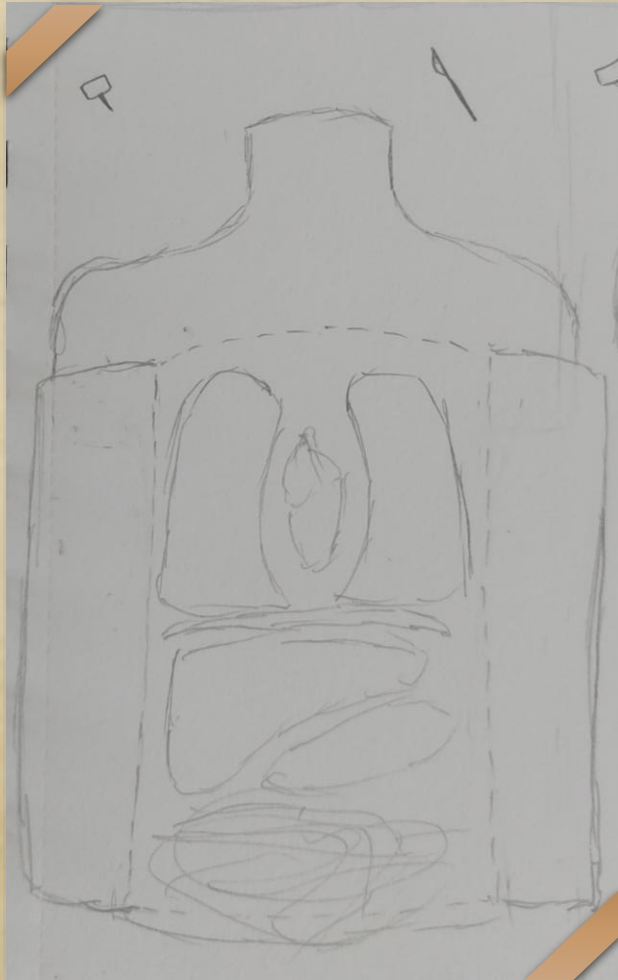


**Starts with
an uncut
torso**

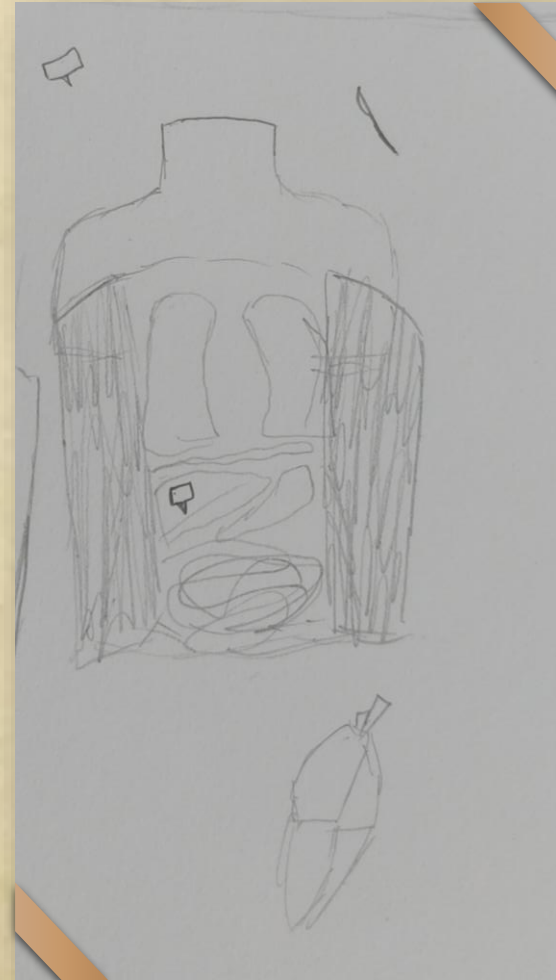


**Using the
scalpel to
make an
incision into
the torso to
expose the
organs**

User storyboard



**Pulling back
the cut skin
to reveal the
organs that
lie in the
torso**



**Use the tags
to label each
organ and
using the leap
motion hand
tracking to
grab each
organ to get a
360 view**