

Multi-sensory integration

Sensory augmentation enabling virtual interaction

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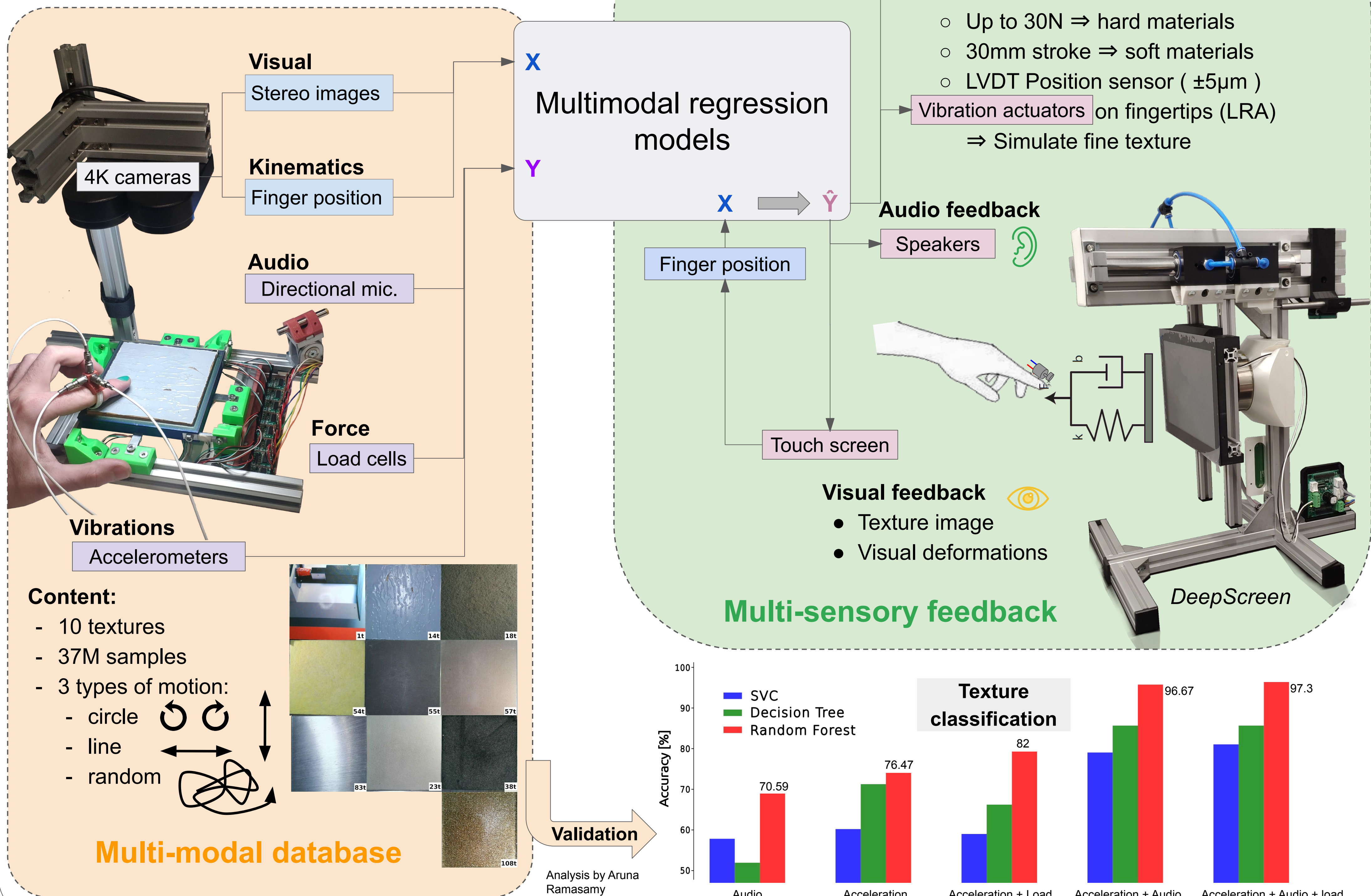
Objectives

- Develop a **cross-modal** stimulating device
- Provide **simple sensory cues** to generate a **complex feeling**
- Evaluate the impact of sensory cues on the identification accuracy, precision and speed
- Determine **combinations of sensory cues** yielding maximum information

Senses

- Haptic**
- Visual**
- Audio**

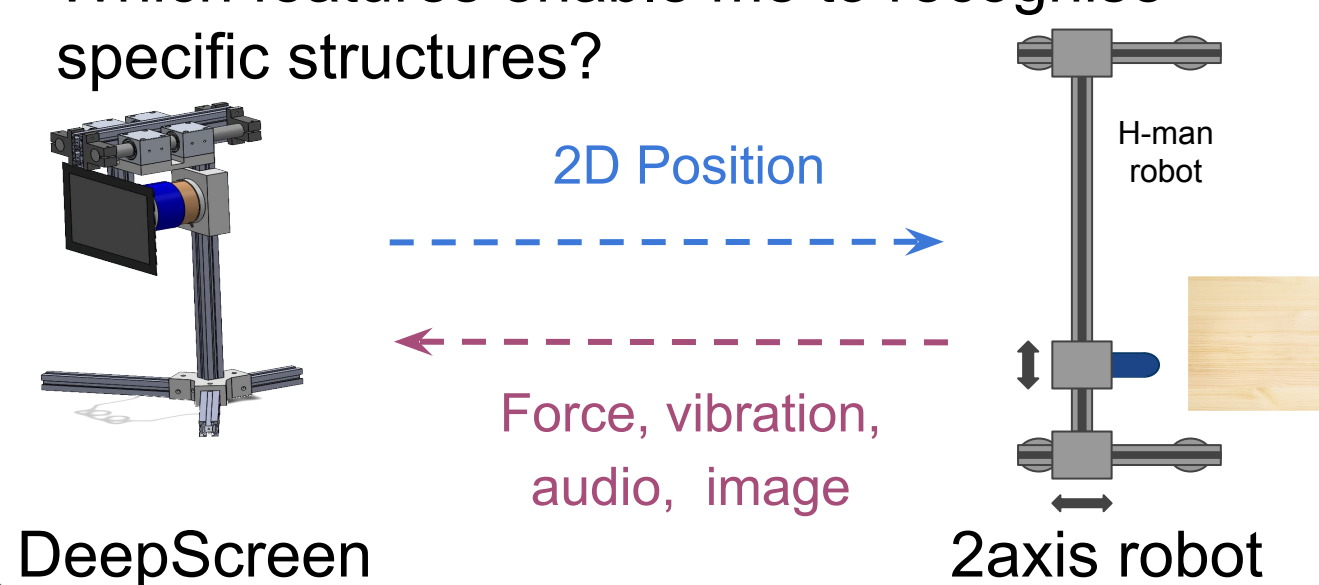
Cross-modal platform



Applications

Tele-exploration

Which features enable me to recognise specific structures?



Rendered material

- Match real & rendered materials
 - 3 experimental factors
Visual/Haptic/Audio
- ⇒ **Impact on material identification**
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Tele-palpation

- Stiffness map simulating the presence of an abdominal nodule
- ⇒ **Is palpation without shear force feedback possible?**

