RUTGERS
WINLAB | Wireless Information Network Laboratory

Augmented Reality: Android HUD for Face Recognition

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Project Description:
Head-Up Display system for recognizing faces from a database, and displaying relevant information.

Use Case:
CEO at a meeting
- know current employers
- know salaries

Alzheimer patient
- remembering family, friends

Hardware:
MOD LIVE HUD
- Android
- Bluetooth
- small display
- external remote
- made for alpine goggles
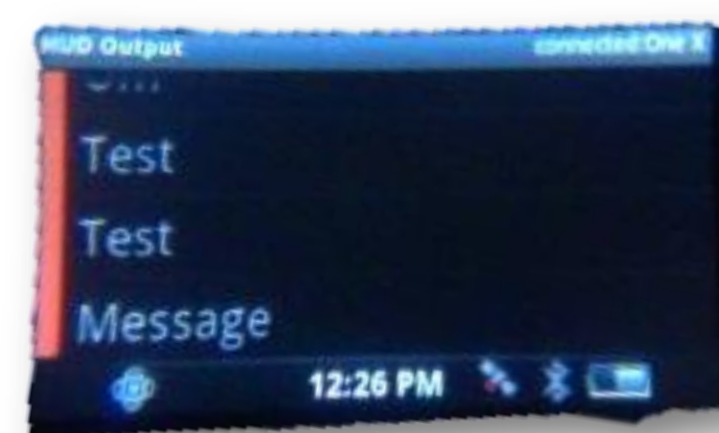
Mount:
- Bicycle helmet
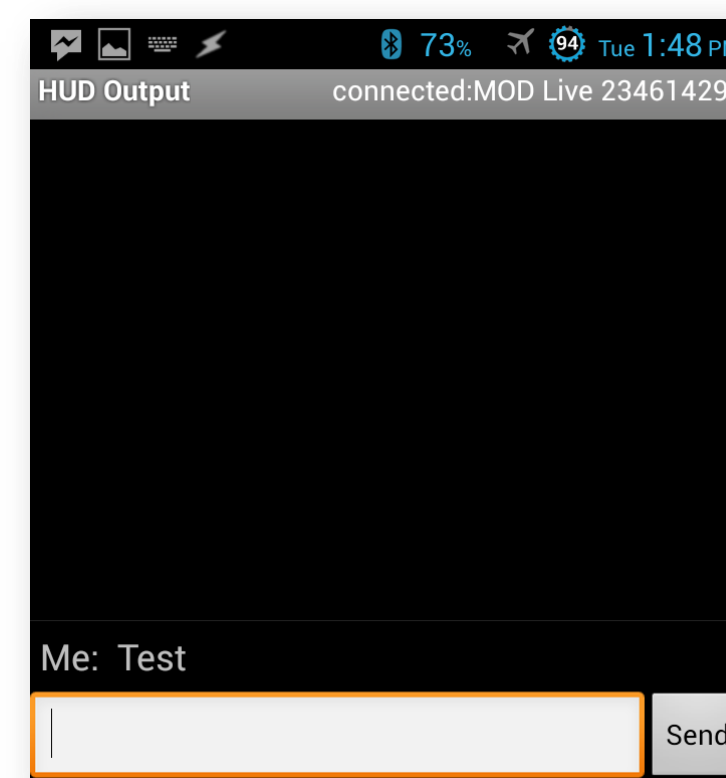- Also holds Android phone

Face Recognition:
Fischerfaces algorithm
- Prebuilt cache from training images

MOD LIVE HUD
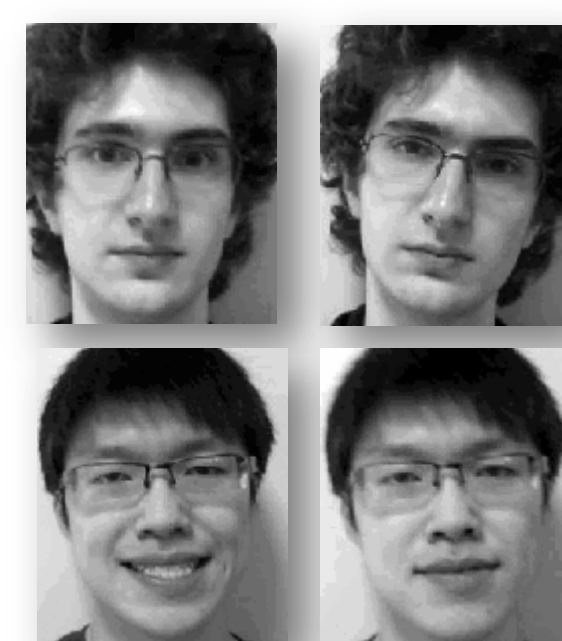

HUD App

Phone App
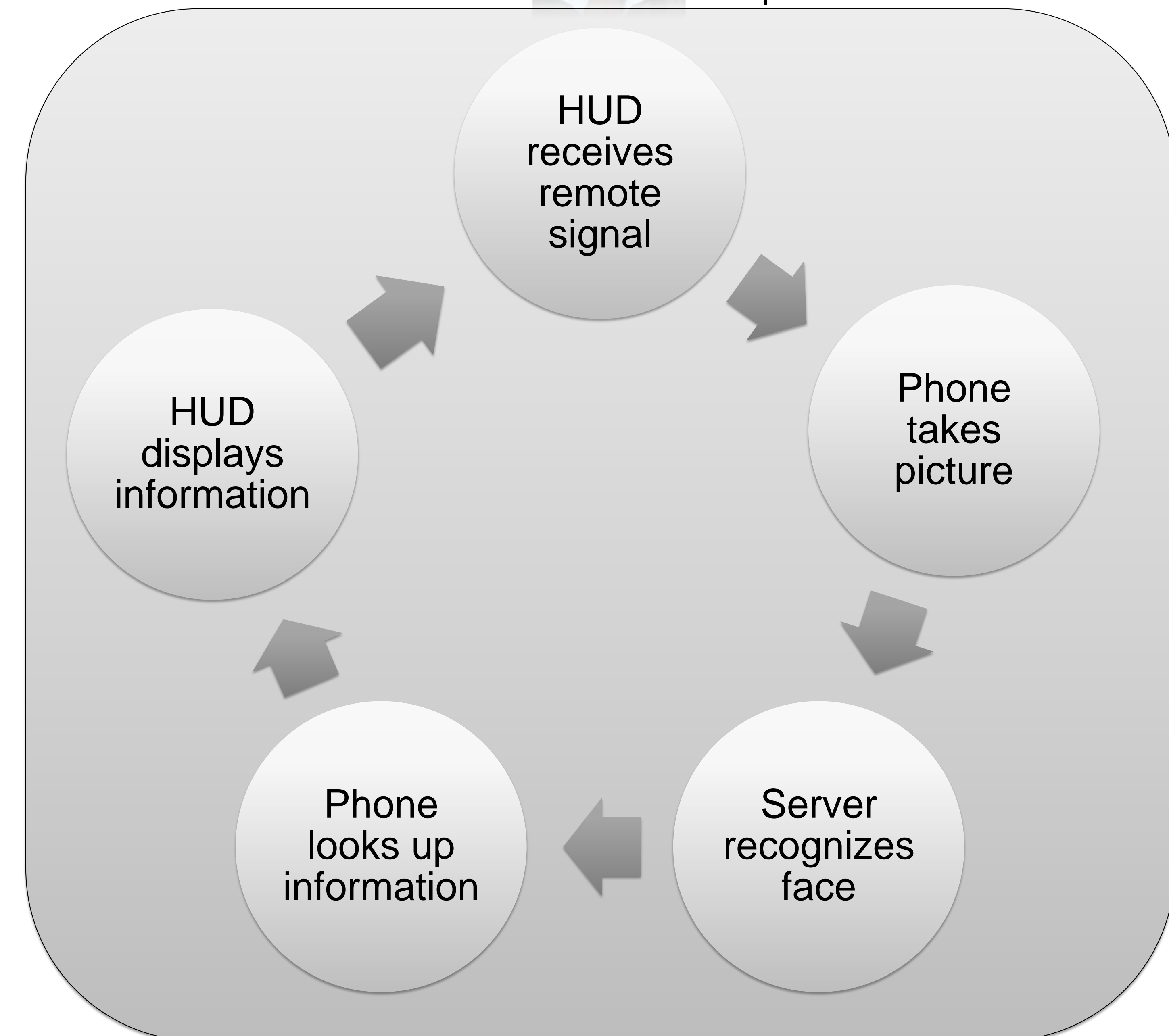

Mount

Training Images

Cache Files

HUD receives remote signal → Phone takes picture → Server recognizes face → Phone looks up information → HUD displays information

Future Work
- port to less obtrusive device
  - Google Glass
- Local recognition
  - Eliminate server, internet access
- Create tool to organize training images

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