The Autism Glass Project

at the Wall Lab, Stanford University School of Medicine

- Over 1 million children under the age of 17 in the US are on the autism spectrum.

- These children often times fail to recognize basic facial emotions, which make social interactions and developing friendships even more difficult to sustain.

- Gaining these skills requires intensive behavioral interventions that are often expensive, difficult to access, and inconsistently administered.

- The Autism Glass team at Stanford is researching a solution.

- We have developed a system using machine learning and artificial intelligence to automate facial expression recognition that runs on wearable glasses and delivers real-time social cues.

Database
HIPAA-compliant, encrypted Server at Stanford

Happy
Social Cue
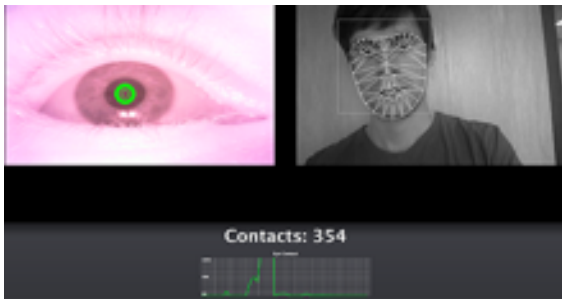Word, emoticon, or color on heads up display, or audio
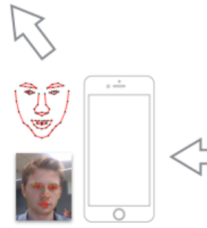
Smartphone App
Sensor processor tracks faces, recognizes action units, expressions and identifies social cues

Glass App
Outward-facing camera captures faces, inward-facing eye tracker tracks gaze

Family Members

- The novel Autism Glass system uses the outward-facing camera on the glasses to read facial expressions and provides social cues within the child's natural environment.

- It also records the amount and type of eye contact, which adds an additional layer for behavioral intervention.

Contacts: 354

- After a successful 40-person pilot study we are now embarking on the second phase of our research.

- Following our existing IRB-approved protocol, we will allow families of children with autism to use our device at home, with scheduled, periodic in-lab visits.

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