Motivation
Awareness of the internal emotional arousal is a core competency in adequately self-regulating and co-regulating emotions during successful social interactions. Externalizing their internal emotional arousal can prove to be challenging to individuals on the autism spectrum.

Is it possible to leverage the use of the Google Glass and cutting edge physiological sensors “in situ” to:
• Gain deeper insights into the autistic experience?
• Make it easier for an adult to learn how to best interact with a child by “seeing” how the child internally reacts to their social advances?

Measuring the Internal Emotional Arousal
Using Electrodermal Activity (EDA):

**Good Indicator**
- Arousal
- Cognitive Load

**Sensitive**
- Temperature
- Physical Activity

**Sensor**
- Wireless
- Comfortable

1 sensor @ 32Hz worn either on wrist or ankle.

**Limitations**
- Specificity
- Artifacts

EDA Signal Processing

- **Signal Decomposition**
- **Baseline Generation**
- **Baseline Accuracy & Use**

EDA Sensor

Real Use Scenario

Google Glass

Glass Display “In Situ” – Emotional Arousal Scale

Future Development

- **Combining EDA & Heart Rate “in situ” as a marker for Emotional arousal.**
- **Exploration:**
  - Visualizations.
  - Displays.
  - Live Interaction with “GLIM”.

G.L.I.M.: Glass Live Interaction Monitor
Internal State Interaction Monitor Using Google Glass + EDA

Ivan Riobo1, Aman Parnami1, Javier Hernandez2, Gregory D. Abowd1
{ivan.riobo, aparnami3, abowd}@gatech.edu – Georgia Tech1 - {javierhr}@media.mit.edu – MIT Media Lab2

Website: http://www.ledalab.de