Computer Vision for Early Childhood Behavioral Disorders

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MnDrive Kickoff Event

April 17, 2014

Current System

- Installed at the Shirley G. Moore Lab School
- Multiple RGB+D sensors deployed around a real world classroom environment
- Segmentation and tracking can provide subjects for further analysis

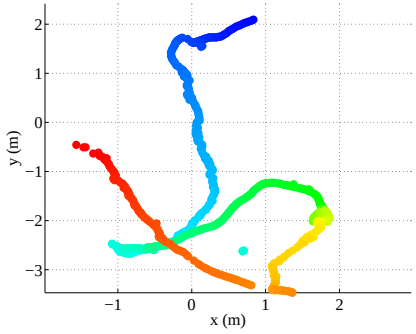
Sensor1 RGB

Sensor2 RGB

Sensor3 RGB

Sensor4 RGB

3D reconstruction of scene



Tracking

What risk markers to focus on?

Motor Stereotypies

- *Definition:* Purposeless, Rhythmical repetitive [motor] movements (Goldman et. al 2008)
- Associated with Autism, Rett Syndrome, and other developmental disabilities
- Observed in both developmentally impaired and normal children but decrease rapidly in the normal case

Acknowledgments

This material is based upon work supported by the National Science Foundation through grants #IIP-0443945, #CNS-0821474, #IIP-0934327, #CNS-1039741, and #SMA-1028076. Additional support for GS from NGA, ONR, ARO, and NSSEFF (AFOSR) is also gratefully acknowledged.