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**Goals**

- **Visual-Auditory Integration**
  - Visual Channel
    - Event-based Processing
  - Auditory Channel
    - Forward Filtering
    - Lateral Integration
    - Feedback Modulation

- **Distributed Representation & Integration**
  - Fusion
  - Vision
  - Audition
  - Multisensory Correlation Detector unit
  - divisive pool normalization
  - Bimodal

- **Bio-Inspired Principles**
  - FF
  - Lateral Integration
  - Feedback Modulation

- **Neuromorphic Algorithms**
  - **TrueNorth (IBM)**
    - energy efficient
    - Corelet language
    - Compass simulator
    - offline-learning
    - (Eedn-framework)

  - **SpiNNaker**
    - more complex neuronal models
    - multi-cast messages
    - online-learning
    - (STDP)

**Robot with event-based sensors:**
- stereo cameras on saccadic actuators providing microsaccadic movements
- stereo microphones

**Robotic Platform**

**Initial Results**

- **motion**
  - V1
  - MT
  - V2

- **form**

- **Prototypical neuromorphic implementation of Optical Flow**

- **Retinal microsaccadic movement**

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