

Moving Planar Catoms

Cylindrical Prototype Modules for Claytronics

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2D Cross Sections of Catoms on Flat Surfaces

- Special case of spherical catoms
- Test bed for claytronics algorithms
- Experiment with cooperative movement using electromagnetism

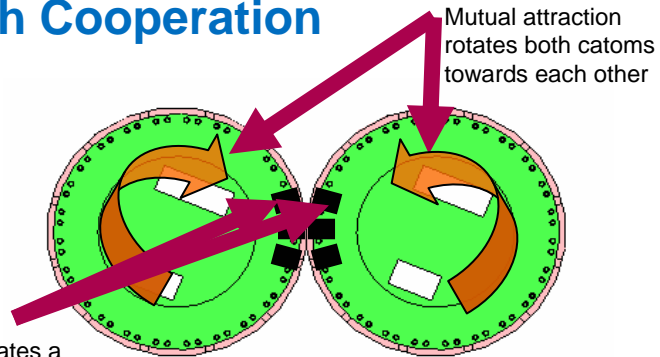


Pairs of Catoms from prototypes 7 through 2 (left to right)

Relative Locomotion through Cooperation

- All catom movement is relative
- Must coordinate with neighbor to move
- Electromagnetic attraction causes rotation
- **Both** catoms spin equally and oppositely

Energizing close but not yet touching electromagnets creates a powerful attractive force



Ensemble Formations and Movement

Using **high power** induces relative locomotion between a pair of catoms

...but by also using **low power** the ensemble holds itself together

Moving the catom relative to the ensemble into a new formation

