Input and Output are the two foremost important factors which consist our computer technology of today. No computers can function devoid of input, and no output exists without an input. I seek to extract these two fundamental, yet direct, relationship of computer to the physical realm to further study aesthetics of computation that remain uncultivated.
Tangible Output?

I want to aim for a project, which the output does not reside within the realm of computer screen with limited resolution. From now on, “Tangible Output” will mean that the result of a certain information processing within computer will finish as an actual “thing.”

An object with permanence.
An object with a grip to the reality.
An object which the encounter is able to cherish with its own tactile senses of infinite resolution.

Therefore, Tangible Output emancipates itself from the transient nature of information. Tangible Output may result in the following media:

- Print
- Kinetic Sculpture
- Conventional Product design (as in lamp, furniture)
- Rapid Prototyping (difficulty in access?)

Tangible Input?

Before sending data to output, there must be an input. However, I want to work for building an input system does not rely solely on conventional input devices such as keyboard, mouse, and web camera.

Possibly, I am thinking of an input device of a “control box” which can exist as an self-sustaining object perse.

More clarification through explanation of the related projects which I researched.
Tangible Output : Print : Product

“TABLE 01”, John Maeda. 2001
Collaborative piece with William Sawaya.

John Maeda printed his computational design pattern on a plexiglass. The pattern loses its transiency and now becomes an object with permanence with functionality.
“Process 6 (Image 4)”, Casey Reas. 2005
Inkjet print on a Hahnemühle Photo Rag paper.

In Casey’s case, he printed his computational design pattern on a 2D media. The resolution does not become an issue here. The infinite resolution directly gets translated to the viewer’s retina.
Tangible Output : Kinetic Sculpture

Although there is no computer technology involved here, Alexander Calder’s kinetic sculpture can be understood as an output of multiple dimensions of computation, meticulous planning to present this balance.
"Reactive Boxes, Continued", Casey Reas. 2000

Now, the computation taking place moves from nature to computer. The result is still physical. The main focus becomes the relationship of the behavior or each of the movement.
"Topobo"
Hayes Raffle, Amanda Parkes, and Professor Hiroshi Ishii
MIT Tangible Media Group, 2003–2004

Topobo is a 3D constructive assembly system with kinetic memory, the ability to record and playback physical motion. The user can manipulate each of the components and making each modules “learn” certain movement, and then the user can easily create a complex organic creature that self-operates.
Tangible Input : Kinetic

“PegBlocks”
Ben Piper, Matthew Karau, Beto Peliks and Hiroshi Ishii
Tangible Media Group, MIT, 2000 – 2001

Images on the left from an exhibition during Ars Electronica, 2001 – 2003

Series of PegBlocks are interconnected and act like transducers. Pushing the pegs in and out would enable the other pegs to react as well. That information of pushing and pulling is relayed to other PegBlocks as well and array of movements are generated.
Tangible Input : Tactile

“Fabric Interface” Bill Keays, 1997

This project uses a soft canvas as the interface. The tactile input taken in will immediately affect the output on the screen.
My Interest, Some Keywords

I like small gadgets.
I like cubes.
I like building a complex system out of simple modular objects as in lego.

Therefore, my hope is to make a system which allows the user to interact with small gadgets: connecting, building, interlacing, welding, intertwining.....all sorts of action that might happen among those little gadgets, those little modular objects, as an input source. Taking in those input information generated, the output could be a visualization of the relationship of that action taking place. However, things are prone to change and I will be willing to take in any kind of constructive comments. :- )