Research Plan

LafeLab

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Big picture goals and problem statement

Without drastic changes, industrial civilization is doomed. On the current trajectory physical mass death will follow personal and spiritual mass death. A trajectory back in time to before industrialization is not worth contemplating due to the benefits of technology for the 7 billion people in the world.

At the heart of this is the extraction based capitalist system. The goal of this lab is to build technology that enables a high standard of living in a post extractionist post capitalist civilization. Supply chains are to be built from waste streams of the old economy. Technology must be buildable with reasonable skills that can be shared by society, without specialized equipment or technicians. The main focus is on using electric and magnetic fields to do useful mechanical work that helps people improve their quality of life.

Specific major Project Goals

1. Resonant linear motor
2. Resonant orbital motor with reversibility
3. Generic robot system built from resonant orbital motors
4. Additive and collaborative currency based on the supply chain for physical systems built by LafeLab
5. Reversible pumps for air, water, vacuum using resonant orbital motors
6. Microfluidic pumps using same, for biomedical and chemical applications as well as microvacuum circuits
7. Power harvesting systems which turn driven mechanical oscillator motion and shaft rotation into stored energy in capacitors
8. Generic system for microprocessor fabrication from soot and dirt using RC timer circuits
9. Each supply chain element sourced from a known free source
10. machines to automate assembly built from same parts as everything else, so that they can self-replicate, including wet electronics for microprocessors
11. User interface for rumbles of robots using free iot stuff