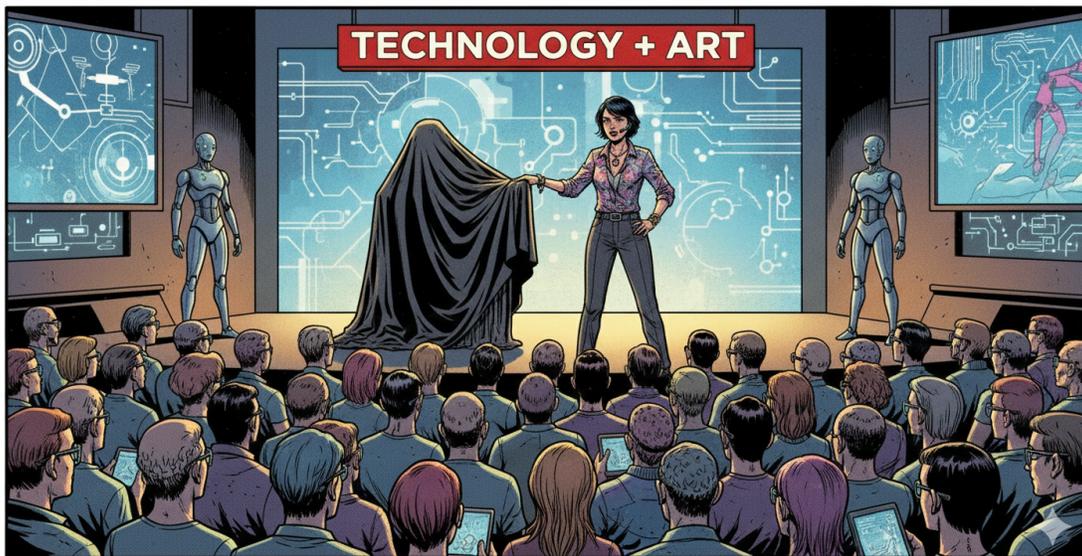


# Kinetic Energy Assignment

**Scenario:** You've graduated NYU, and your ITP Thesis is a hit! You've been on a world tour with your art (/installation/product/business), and most recently visited the 2026 Consumer Electronics Show (CES) at Las Vegas as a featured guest artist (/ entrepreneur etc). You were given a booth on the exhibition floor between Donut Labs and one of the many new exoskeleton companies launching, where thousands of people experience your work and you addressed thousands more at a keynote. Best of all, you avoided getting a "Worst in Show" for wasteful tech from repair.org.

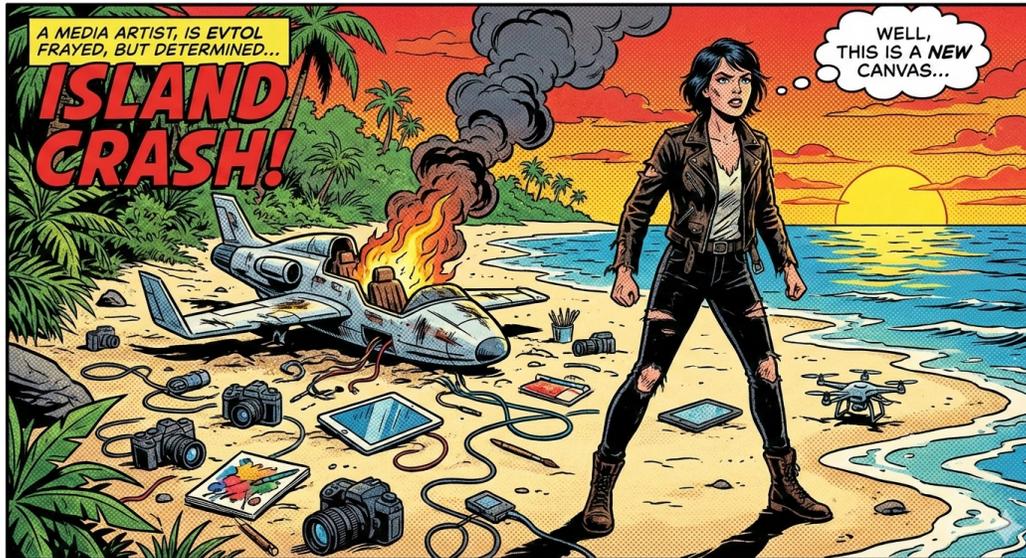
Flush with success, you pack your work, plus all the support materials and repair tools



you've learned to travel with, into the custom long-range autonomous EVTOL you've been gifted for your tour. It rises drone-like into the air, transitions to fixed wing mode, and an hour later is approaching Los Angeles. However, just as the city comes into view, a sudden storm front develops, enveloping you in dark clouds. Strong winds take hold of your craft, carrying it far out to sea. You pass out in the increasing turbulence.

You don't know how much time has passed when you slowly begin to wake up. You see you are alone on a small tropical island, you guess somewhere in the Pacific. Although disoriented, you are basically unhurt, and you begin to take stock of your situation.

Luckily for you, the island is just about the perfect place to wash ashore. It offers easy shelter in the shade of the numerous palm trees growing along the coast. A fast-flowing stream of cool, fresh water runs to the ocean from an inland spring deep in the jungle interior. There is abundant vegetable and animal nutrition at hand, plus your vehicle was equipped with emergency rations. You're not going to starve anytime soon.



Your craft has more than just food. It contains a full medical kit, plus water filtration. Best of all, you've packed an incredibly useful kit of things you use to support your work. Your small 3D printer, laser cutter, and a variety of hand tools for making on-the-road repairs have all survived the crash intact. And your electric vehicle still has a bit of battery power left that can run your tools for a day or two.

You begin to set up a tiny workshop, **thinking back on a class you took while at NYU: DIY Energy!** You set about using the last remaining electricity in the ship's batteries, plus items you scavenge from the shipwreck or find in nature, to build an electronic device to help you in the days ahead.



*What do you do make?*

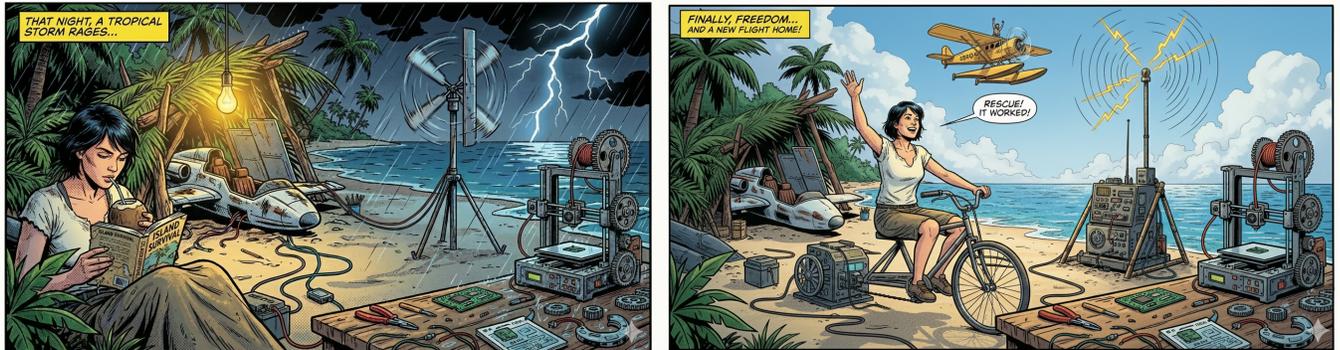
## Assignment:

Using materials you imagine salvaging from the wreck of your craft, create something to improve your situation on the jungle island.

Problem: boredom? Build a game!

Problem: darkness? Build a light!

Problem: communication? Build a radio!



## Guidelines:

- Your device should run on electricity that you generate.
- You should use at least one item from the junk shelf or “recycled” from your own personal junk shelf.
- You may use the fabrication tools at ITP, but keep track of how much time (and thus energy) you use, as we will look at that energy use later.
- You may work in groups of up to 3.

Begin with the kinetic energy concepts we will look at in the first weeks of class, using the provided stepper or DC gear motor as a generator. If this material is new to you, making an LED light is a great place to start. If you are comfortable with the material, tools, and electrical concepts, consider incorporating a different generator and/or a more elaborate powered device, such as a microcontroller.

**Bonus points:** How much energy did I use generating the images for this assignment? All the text is mine. The model was Gemini nano banana, and I accepted the first response with no edits. I also used the same 5 prompts with Open AI; four of the prompts were accepted on the first response; one was edited twice (because it was too racy).