To-Be-Named Capacitor Kart Project
Design Meeting #2 Notes – 7/1/2008
Recorded By: S.C.

New Business:
- Build Schedule: trying Tue (5-8) and Sat (10-3) starting on Sat, July 12
- All parts / raw materials will be ordered this week.
- Budget Update: approx. $3,000 remaining before massive part orders
- Permission Slips: apparently I was supposed to do those, coming soon

Design Overview:
- The giant whiteboard, high-contrasted and explained:
  - Motor “shelf” 12”x24”, can cut on waterjet here.
  - Need more weight up front. Batteries as far forward as possible.
Components:
- **Batteries**: SeaVolt AGM, LxWxH = 10.9”x6.8”x9.9”, 53lbs, 79Ah. Nice, sealed, bit pricey, but AGM can handle high discharge/charge rate and general abuse.
- **Motor Controller**: custom-built, need to make aluminum heat sinks for transistors.
- **Main Controller**: my thesis control box? Can drive relays and do telemetry. Sold?
- **Sprockets**: 12/15/18 to 54 tooth gives 4.5/3.6/3.0 ratios, #40 chain.

Motor Shelf CAD
- A fully-constrained sketch…impressive. Let’s just hope the dimensions are right.

- For how many years will I get away with reusing the same 80-20 model?

- Legs allow for vertical adjustment, chain tensioning.
- And yes, it only has three legs. (Motor weight is centered over right two.)
How to double-check your relay measurements…

Instrumentation (a lot to wire up!):
- **Wheel**: cap button, kill button
- **Behind Wheel**: switches for shifter
- **Dash Panel**: cap/batt voltage, speed/RPM, LEDs also for speed/RPM?
- **Side Panel**: start/stop button, transmission type (shift/CVT), voltage selector, regen on/off, main kill, anything else
- **Pedals**: potentiometers for accel, brake

Stuff for Next Meeting:
- Motor shelf built, motor/cap/relays mounted.
- Sprockets, chain done.
- Start looking at battery mounting solutions.
- Start thinking about wiring and control.