

Jordyn use the high voltage path document in the powerpoint

CellMan provides cell voltages and temperatures
SegMan gathers info and calculates segment SOC
Are we doing Cell balancing?

AMS Block Diagram

Big question judges may ask what is TSV an what is GLV
If dashed lines is all TSV, PacMan will have tsv and glv

Pretty Diagram

On the diagram provide shading so we know where GLV & TSV lives
Not particularly good for technicians, who need to build this.

Cell Man Schematic

Cell grounded side, segment grounded side

Layout Board

Mechanically how are they dealt with?

Move to cell mounting

Mount on a single standoff that is in between the holes that mount the bus bars

How expensive will it be to make slots on a PCB?

Manufacture the slots here.

Picked the center in the holes because that distant does not change

Helm: "Good chance that you will not be able to get everything tight, because with these boards everything will be crowded"

"Would you have any problem with carrying the currents if you were to counterbore the slots, and a socket head capscrew"

Nadovich : "If the board was redesigned with no components on the bottom you could put a thin piece of garolite and just screw it right in and screw the insulation.

"If there is a way to get rid of that cable where the CellMen are connecting that would be valuable"

Helm: "If we have one pigtail pins that connect to each other we would not have any trouble"

Nadovich: "Judges will be worried about the big bolt heads in the 300A world."

Segman

Segman mounting

Helm: "What would the advantages be of combining PacMan & Segman"

"Having two segmans and a pacman on each"

Nadovich: "Make up your mind for the hole clearances use the same"

Display

You might have colors, for under voltage, over voltage, possibly pattern based coloring.

SL: Whether or not there is an AMS fault.

Helm: "Would there be a way to check if that fuse is blown?"

If you could show pack voltage, and the light would not be on, that would be an indication that the fuse may be blown.

Gigavac SMD

What voltage does it really have to be rated for?

Jon could not find SMD voltage between 48 and 1000.

Use this switch if you can.

Could you possibly place this SMD outside of the pack?

Absolutely possible. Dope. Cool Cats.

More likely to send the SMD outside of the back of the pack and use cables to wire it up.

Put pressfit aluminum panels to mount the SMD rather than actually using nut and a bolt.

MECHE SIDE

GLV TSV Isolation

You can possibly route the GLV stuff underneath and you can even provide some kind of coating to have a barrier.

There is a garolite barrier between the GLV and the SMD, but perhaps instead of wiring run a conduit next to the SMD in order to wire up the display.

Teflon tubing would work, that is not a thermoplastic, until you actually manage to burn it

Moved away from the box inside the box idea from the last design review.

"How do you actually manage to hold it together?"

There will be a bottom plate that is a thin piece of aluminum that has a garolite piece on top with holes that can hold the isolation pieces as well as the pieces to hold the battery segments in place.

As of now it is a 1 inch thick piece aluminum.

Segment Mount Frame

Each aluminum bare from here would slide into the slots in the aluminum frame

Needs to be secured in 2 - 4 places

Underestimating the weight size and playability of the solid aluminum bar.

Half inch piece that you just drilled 4 holes into. One of the downsides to a solid piece.

The places that take the bending in the 80x20 are the corners

Separate holding from squeezing

If you want to squeeze then you are not getting it tight enough to get the stability out of it that you want from the frame.

Helm: "One of the things you might want to consider to get something that does squeezing separately. If you have a piece of 80x20

Cells all sit on a smooth plate so they will definitely slide around
Alligator teeth garolite holding it down

**Where is the 100% insulation between the monster
Air is not acceptable inside the pack
The tops of the cell terminals need to be completely encased.**

If the external enclosure is metal, than the internals need to be 100% isolated, which

Jordyn's inner monologue

"Insert talk about insulation inside container"

Actual information

This will most likely need a shoebox covering that covers those bars, and we'll need to line the inside.

I was a little bit derailed by this conversation, I may have gotten distracted, but I have heard hear and there things"

Helm: "Is there any value to going to the outside of the frame"

Nadovich is now talking about cast epoxy. Helm suggest fiberglass, now they are talking about what garolite is.

Tim: "Are you suggesting that we tie together the segment mounting with the frame itself?"

For Display side sheet

Consider a thin piece of steel rather than aluminum because that can raise issues.

Remove the vertical struts and move it in line with the frame, and tie it in the frame (against the wall) and made the side pieces beefier, that would be much more secure.

"Where do the wires go?"

muffled sad laughter

SegMan would be mounted on the top of the horizontal shelf

Possibly could place pacman inside that little glv box and still have the segman right on the shelf to connect through the slot.

PacMan could possibly be sitting inside the slots and have the containers mounted on pacman.

Walls next to AIR's will have a small hole in order to route the wires from AIR to pacman.

"Making the hole smaller than the wire, is in general not helpful"

The wires from segman to that need fuses will also need to be isolated.

Possibly put wires to the AIRS

End terminals from the cells can go immediately to the AIRS

“A good weld cable is flexible.”
Copper bars are bendy a little bit