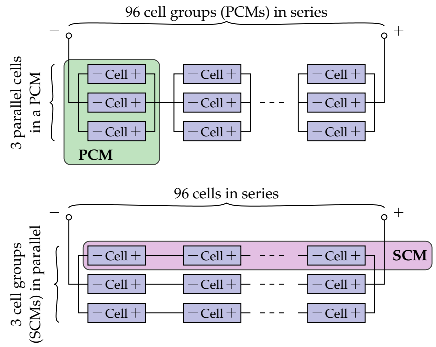
## Summary of this week

- This past week, we built on the prior week's development of the ESC cell model, and you learned how to simulate
  - A constant-voltage input
  - A constant-power input
  - Series-connected battery packs
  - Packs comprising PCMs or SCMs
- You saw example Octave/MATLAB code for all of the above








## Decision point

- This brings us to the end of the non-honors version of course 2 in the BMS algorithms specialization
- Decision point:
  - Honors track has one more week in course 2, looking into how to co-simulate a battery pack and a representative (electric-vehicle) load
  - Remaining courses focus on how to estimate battery internal state, and how to control battery operation





## Where from here?

- Our next step begins the process of designing and implementing BMS monitoring and controls algorithms
- So, course 3 "Battery state-of-charge (SOC) estimation" introduces
  - A physical and practical definition of state-of-charge
  - Some simple ways to estimate state-of-charge, and their weaknesses
  - A critical technology known as the Kalman filter
  - How to use extended and sigma-point Kalman filters to estimate battery state
  - Ways to solve real-world issues via Kalman-filter methods

## Credits

Credits for photos in this lesson

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