Timeline:

* Fall
  + Week 5:
    - Setup regular meeting times and start meeting with your teams ASAP!
    - Begin thinking about the overall system design. Consider:
      * Car chassis (Pan car kit, 1/10 or 1/12 scale recommended)
      * Sensor type (optical vs magnetic)
      * Microcontroller (Arduino or Teensy are recommended)
      * Servo motor (don’t buy until you have the chassis)
      * Motor (brushed motor, 20 something turns recommended)
      * UBECs (voltage regulators, consider amperage and voltage limits)
      * Kill switch (Bluetooth recommended, but RF may work, or may not!)
      * Wait on the batteries for now. Waiting to hear back from Natcar to see if LiPo batteries will be allowed this year.
    - Expect to put in a MINIMUM of 6 hours per week each, if you want to succeed.
    - TEAM LEADS: email Ihab and Alec list of your team members, and IEEE numbers.
  + Week 6:
    - Have system design outline complete (submit preliminary block diagram to me)
    - Break project into subsystems and start tackling them.
    - First, begin with understanding motor drive and H-Bridges.
    - Try to have people working in parallel on sensing (optical is recommended, but it is your choice).
  + Week 7:
    - Put in main Purchases (chassis, sensor, MCU, motor driver components such as MOSFETS, Gate Driver, perf boards, etc).
    - Make sure to keep receipts for reimbursements. Document everything well.
    - Continue researching motor drivers. Get ready for testing.
  + Week 8:
    - Build and test H-Bridge
    - If having issues, research more, have intra and inter team discussions.
    - Still having issues? Ask for help! Note though, I will not help you unless you have already done your research, and made every attempt with your team and other teams first!
    - Submit status update documenting all progress
* FIRST MILESTONE:
  + Week 9:
    - ALL TEAMS: Demonstrate motor driver functionality (Date & location TBA)
    - Begin designing PCB layout
    - Submit PCB design for fabrication before winter
* Winter:
  + Sensor integration
  + Dynamic modeling
  + Controller Design
* Spring
  + Testing, debugging and optimization