Roast electro projects

Projects can be split up, for example if a project needs multiple PCBs designed. Also feel free to suggest any projects. There are going to be other projects later when the introductory projects are done, and we figure out if anything else is needed on them. Feel free to contact us if you need more info on any of the projects or if you need info on how to setup a special course.

Electro management: Louise, Sebastian, Lukas

Recommended teachers for special courses: Jens Christian Andersen, Søren Hansen

The competition: homepage, rules

Motor speed reference and drive by wire (speedometer)

Current status: we had a introductory project done on it, but we didn't get anything useable from it

What needs to be done:

- increase safety of the current implementation
- choose a gas pedal
- choose a microcontroller (and possibly a ADC chip depending on the microcontroller)
- PCB for the speeder
- PCB for motor driver
- Filtering of speed reference (for the motor)

Steering wheel design

Current status: a rudimentary circuit and layout has been designed, but this can be changed if needed.

What needs to be done:

- check up on the rules for steering wheel
- possibly make a update to the design
- PCB for wheel
- make prototype and test

Interface for a co - driver

Current status: we have acquired a raspberry-pi that can be used for the project

What needs to be done:

- design a GUI that can show relevant data (speed, batteri energy left, etc.)
- implement design on a raspberry PI

Motor

Current status: we have a motor, but the documentation is lacking, so we need a new one.

What needs to be done:

- investigate the optimal solution for the motor (most likely two motors)
- find and buy motor(s)
- make a motor driver, if the motors doesn't have one

Solar Cells

Current status: we have nothing, so go ham if you have any ideas.
What needs to be done:

- read up on rules
- find and buy solar panels

Other smaller projects

-Speakers
-GPS
-Radio
-Camera on the side instead of mirrors