L2 Design: Business Case

* Target market and requirements thereof
  + Commuters: long-range distance, large charge interval, durability wrt. long term wear, retro-fit must be relatively straight forward to allow for lack of experience
  + Hobbyists: Must be retro-fittable to allow for regular skateboarding, shock resistant due to nature of skateboarding activities
* General costings and comparison to competitors

The general business case for an electric skateboard consists of product that can be used both as a viable means of transport as well as recreational activities. This allows for a broad market appeal if the design is suitably versatile - as such, it was decided early on in the design process that the device would be implemented as a retrofit, allowing for the design to be used in combination with a large variety of boards and thus appeal to a wide array of consumers. The current electric skateboard market is relatively small, indicating that there is room for start-ups like our product to compete, with the success of current market leaders such as Boosted and OneWheel showing that investing in this area is a viable business model and that such products are feasible from a design perspective.

This design is aimed broadly at two market groups: commuters and skateboarding hobbyists. As such, two user cases must be satisfied. The commuter requires a board that can capably traverse a typical commute within an urban environment, be able to climb significant gradients and possess a battery life that can comfortably manage a working week’s usage. To make this a viable means of every-day transport, the design must ensure reliability. Not only must the mechanical components be capable of withstanding long-term wear and mild impact, the electronics must be suitably protected from the elements and suitably programmed to avoid software failure and potentially catastrophic electrical faults. In contrast to the commuter, the hobbyist market consists of consumers well acquainted with skateboarding and thus the product must be compatible with conventional skateboarding activities in order to garner more than mere interest in a novelty item. Here the retrofit nature of the design is particularly significant, allowing the board to be converted from conventional to electrified and back with relative ease; not only does this allow for the hobbyist to electrify their board of choice whilst retaining access to conventional skating, the retrofit is also simple enough to allow for the commuter to carry it out with ease despite being less well-versed than the hobbyist. Whilst a certain degree of basic competence with hand tools will be required of the customer, the retrofit would certainly not exceed the difficulty of basic bicycle maintenance for example, thus it is reasonable to assume that this is well within the capability of the average consumer.

The material costs of this design run to approximately £880, with an estimated 20% increase to account for manufacturing costs bringing the final production cost per board to £1056. Market competitors of a similar specification such as Boosted Board’s “Boosted Plus” and OneWheel’s “XR” retail at £1300 and £1400 respectively, indicating that such a price range is considered reasonable by the current market, which would allow for a profit margin of approximately 20% at a retail price of £1270. As such, this product presents a viable business proposition, providing a strong profit margin at a competitive market price.