Feature-creep vs World-class - The balancing act of creating an MVP

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Building an MVP (minimum viable product) is a balancing act. On the one hand is the need to deliver quickly, on budget, and on schedule a product that meets the minimum requirements. On the other hand is the almost irresistible urge to make the product better, nicer, or cheaper. And while many tools exist for the former, the latter is more a matter or permanent focus on the "minimum" word included in MVP.

Keeping a product development, manufacturing, and delivery activities on schedule and on budget (while never compromising Quality) benefits from the existence of many tools such as:

- Gantt charts (in Smartsheet, Projects, etc)
- Resource allocation and project management tools
- BOM templates (with all the right columns filled-in of course)
- Cash-flow analysis tool (we recommend you try the Beta version of Enging Hardware Product Planner?)

Preventing a product development team from indulging in feature creep (also known as "gold-plating engineering") is more challenging. The product owner needs to constantly ask the engineers and designers if the improvement they are about to work on is a "must-do" or a "nice-to-have". Let's look at some examples:

-1- A tunnel digging robot needs to operate reliably inside a tunnel. This is one of the functional requirements of the MVP. During testing in the lab, the team discovers that the localisation module of the robot will not operate correctly in bright daylight. The temptation is then high to address that shortcoming. The focused product owner will recognize that this is not a shortcoming for the MVP and will steer its team away from that tempting challenge, toward necessary tasks.

Photo 1 - Strip not centered on cell

Photo 2 - Welded spot not centered on cell

-2- The first production batch of a rechargeable battery pack is being assembled in-house. Upon inspection by the engineers, it appears that the strips are not centered on the cells and that the welded spots are not even (see Photo 1). It is also noticed that the welded spots are sometimes not centered on the cell (see Photo 2). It does not look good. It is not perfect. But does it really matter for the good and reliable operation of the pack? Testing might prove that perfection is not needed for world-class operation of the pack (the pictures are taken from a Apple MacBook computer battery pack. I would argue that Apple product quality is "world-class").

Short of testing, the experience of a senior colleague might help the product owner concentrate her/his resources on what really matters.

Key takeaways:

- Stay focus on the "minimum" word part of MVP to avoid feature creep
- Leverage product management tools for everything that can be measured
- Perfection is not always needed to deliver a world-class product