



# VISION to VALUE

- Reviewing the new product development processes. Once it was determined that the issues were with focus and WIP loading, three tools were implemented:
- WIP track board with WIP Cards showing project process (see image to right).
- Company-wide Kanban.
- Resetting the NPD starts to match engineering throughput.

## Results

During a six-week engagement, it was confirmed that the company was heavily engineering constrained and that the primary issues was not their new product development process. Instead of implementing a heavy “project charter-schedule-task mastering” process, a nimble, initially manual, process was defined and deployed to improve time-to-market. This included establishing a:

- Work-in-process tracking board (see graph) to:
  - Focus attention on bottleneck processes.
  - Identify slow moving projects.
  - Highlight areas for process change.
- Company-wide Kanban implementation
- Due to the engineering-constrained nature of the process, a new quota for the product-to-engineer ratio was based on the formula:

$$\text{Products Per Engineer} = (\text{New Products Per Week}) / (\text{Number of Design Engineers}) * (\text{Cycle Time in Weeks}) / (\% \text{ of process in Engineering}) * (\% \text{ Time devoted to NPD}).$$

All processes were initially maintained manually and only the Kanban processes were to become a permanent part of the business process. The

WIP board was used for daily meetings to identify priority issues and level the WIP throughout the project steps. The WIP board would be removed once the project loading was leveled and could be monitored via reports. The physical Kanban boards would be replaced with Kanban software after two or three months of use and refinement.

7291 - 11/20/13 - Engaged (Interim) New To Product NPD Board/Calendar	
Rev Product	ASSIGNED
Opened	10/25/13 (362 days)
Project Started	10/23/14 (365 days)
Ready for Proto	10/23/15 (0 days)
Proto Ordered	10/23/15 (38 days)
Proto Built	11/30/15 (35 days)
Ready for Reds	01/04/16 (3 days)
Reds Ordered	01/07/16 (36 days)
Reds In	02/12/16 (5 days)
Parts In	02/12/16 (5 days)
Initial Panel	02/17/16 (0 days)
Panel App: Eng	02/17/16 (2 days)
Panel App - QA	02/17/16 (2 days)
Initial Build	02/19/16 (162 days)
Code Review	/ / ( days)
Doc. Complete	/ / ( days)
Live	/ /

