

IoT In Manufacturing Case Study

- Labor intensive custom heavy equipment manufacturing
- Labor costs are a main driver of COGS
- Desire to improve operations, scheduling and increase capacity utilization
- Desire to accurately track multiple activities for a worker within a day

Customer Challenges

- Lack of visibility into labor costs per job & hence profitability per order
- Missed order deliveries and scheduling challenges due into inaccurate labor data for planning
- No visibility into plant capacity and utilization, cycle time, hence hard to plan for lean or busy seasons
- No visibility into productive or non-value added time for products manufactured
- No measure of worker productivity hence hard to incentivize or motivate to improve
- Time wasted searching for shared tools and equipment on factory floor

- ❑ Very granular labor-to-job time tracking using wearable sensors
- ❑ Automatic check-in, check out of jobs/workstations based on proximity (upto 50cm accuracy if needed)
- ❑ Asset tracking and location on factory floor
- ❑ Custom lean manufacturing dashboards

Granular Visibility for Lean Ops

Job-Time Tracking

Job Time Visibility

Labor Time Visibility

Value added time

Non- Value added time

Active work
Paused-Reason
Rework A
Rework B
Rework C
Rework D

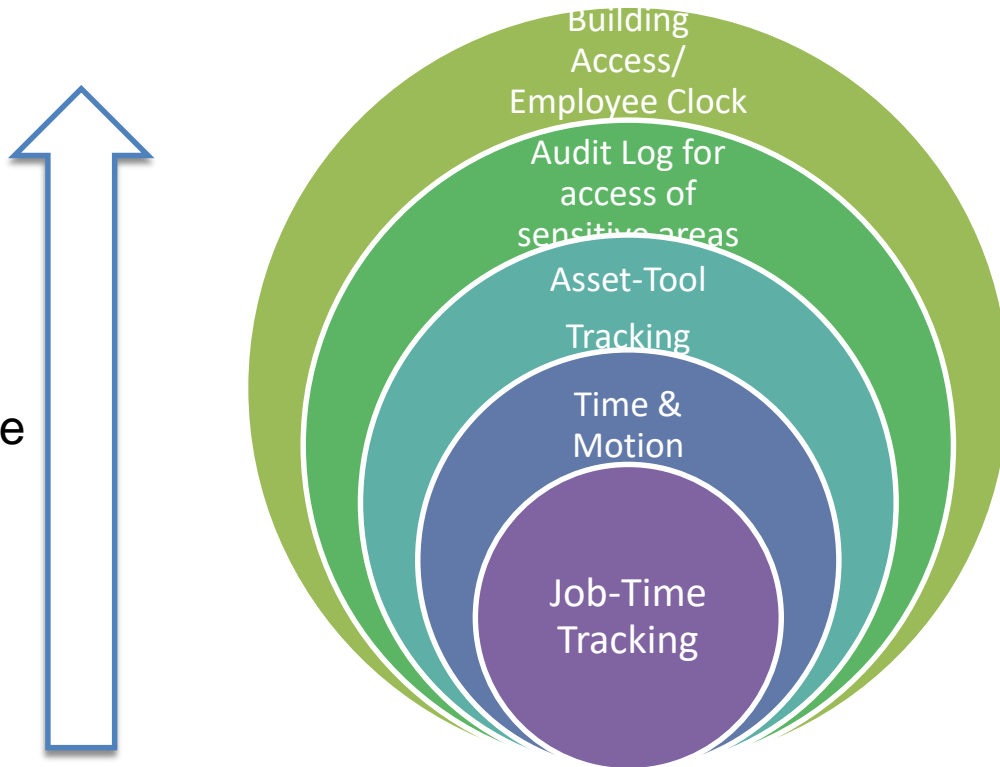
Cycle time

Time on Job
Time Away from Job (on floor)
Time Away from Job (not on floor)

Work Shift

Additional use case on same infrastructure

Additional value



Solution Beneficiary

Benefits	Primary Beneficiary
Improved Job Scheduling	Production, Planning
Accurate labor costs per job	COO
Improved product pricing	CEO
Factory Capacity measurement and improved utilization	COO
Labor/Job visibility	Production
Lower cycle time	COO, CFO