Timothy S. Downs Mullen

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CORE COMPETENCIES

Agile/ SAFe / Scrum

Lean Process Improvement

End-to-End Project Delivery

Team Coaching & Mentorship

Cross-Functional Leadership

Process Automation

Systems Engineering

Security Architecture

Program Management

TECHNICAL SKILLS

Methods: Agile (SAFe, Scrum, XP, Kanban), Lean, TDD, Full SDLC, Six Sigma, SEER-SEM

Languages: Python, .NET, C#, C++, Java, SQL, HTML, XML, UML, ANSI C, SysML

Tools: Jira, Confluence, Git, Salesforce, Selenium, MS Project, Visual Studio, Subversion, DOORS, ClearCase, NUnit, Model Based Systems Engineering (MBSE) Principles

SUMMARY

Accomplished engineering leader with over 15 years of experience directing cross-functional teams in the full lifecycle software and systems delivery for complex avionics and defense platforms. Expert in Agile transformation and coaching, leveraging Lean principles and Earned Value (EVMS) to drive project execution and efficiency. Proven ability to mentor technical staff and manage multi-million dollar projects for mission-critical applications. Holds patents in RFID security and automated checklist methods.

PROFESSIONAL EXPERIENCE

Collins Aerospace | Scrum Master / Senior Software Systems Engineer (2019–2025)

- Provided agile coaching and mentorship as Scrum Master, increasing team story completion by 2.5x by implementing Lean process improvements and removing impediments.
- Achieved 98–115% sprint velocities through effective backlog grooming, sprint planning, and removing impediments using JIRA and other Agile tools.
- Led teams in unified department vision, delivering consistent on-time, on-budget results.
- Mentored team members to align strengths with tasks, sustaining 90%+ on-time delivery.
- Served as Export Classification Lead (JCL2) for department compliance.

Transamerica / TCS | Agile Coach / Scrum Master (2013–2019)

- Guided leadership and teams through Agile adoption, tailoring frameworks to business needs.
- Led innovation sessions producing 9x more ideas than prior methods.

- Built Agile team delivering award-winning initiative for Customer Service Representatives.
- Developed documented SDLC meeting Agile and insurance compliance requirements.
- Headed customer support and train-the-trainer initiatives during rollout.

Rockwell Collins | Lead Project Engineer (2004–2013)

- Delivered a 24-month estimated avionics project in 18 months by authoring an Agile Systems Software Development Plan (SDP).
- Transformed a traditional waterfall environment using Lean and test driven development (TDD) practices. .
- Managed project scope, schedule, and budget, applying Earned Value (EVMS) principles to maintain on-time, on-budget delivery for projects valued at over $1M annually.
- Directed security architecture for connected aircraft, setting new industry standards.
- Received patent for automated checklist methods.

Intermec Technologies | Software Engineer III (2000–2004)

- Introduced Extreme Programming and Agile methodologies company-wide.
- Received patent for RFID security processes.

United States Marine Corps | Intelligence Specialist, Corporal (1988–1992)

- Honor Graduate, Parris Island & Intelligence School.
- Improvise, Adapt, Overcome — Agile since 1775.

EDUCATION

B.S., Computer Engineering – Iowa State University (Graduated with Distinction, 3.5 GPA)

My leadership philosophy is rooted in the servant-leadership model, driving innovation and successful delivery by prioritizing clear communication and fundamental teamwork. This approach is structured around the "5 C's" framework to build and empower high-performing engineering teams.

1. CONNECT (Collaboration & Integration): Complex challenges are best solved by teams that are deeply connected—to the customer, the mission, and each other. Siloed operations are an inherent barrier to performance.
Application: I systematically dismantle barriers between the team and end-users (internal/external). By integrating the customer into the feedback loop early, the team is directed toward building for *mission success* rather than merely meeting specifications.
Relevance to RTX: Expertise in fostering critical collaboration across internal stakeholders, subcontractors, and program management peers to ensure holistic project alignment.

2. COUNT (Impact & Alignment): An engineer's intrinsic motivation is directly tied to the clarity of their contribution. Every daily task must demonstrably connect to strategic corporate objectives.
Application: I ensure every team member understands how their work translates to system impact. I utilize Earned Value Management (EVM) as a proactive communication tool to visibly quantify team progress and the value of their collective effort. The best status report is a functional product.
Relevance to RTX: Proven ability to translate component performance to system performance impact and maintain team engagement even when initial design specifications are evolving or incomplete

3. CAPABLE (Competence & Resources): My core function is to facilitate the team's success

by proactively removing impediments, thereby allowing them to deliver exceptional results.

Application: I view my role as a critical blockage-remover and resource manager. This includes procuring specialized equipment (e.g., RF testing tools) and securing budgets for necessary training and professional development, ensuring the team is equipped for technical independence and sustained competence.

Relevance to RTX: Focused on managing team performance, providing targeted technical coaching, and ensuring all required resources are secured for high-tempo engineering work.

4. COURAGE (Innovation & Risk): Achieving state-of-the-art innovation requires psychological safety and the courage to embrace calculated imperfection. Failure must be viewed as an opportunity for rapid iteration, not an occasion for blame.

Application: I cultivate an R&D environment where "failing fast" is celebrated as an essential step toward the final solution. This critical safety is paramount for complex troubleshooting and rapid adaptation.

Relevance to RTX: Applying critical thinking to solve high-complexity technical problems and implementing systematic processes for risk identification and mitigation.

5. CHOICE (Autonomy & Ownership): Autonomy fuels intrinsic motivation and increases overall engagement. Leadership should always prioritize "asking" over "assigning."

Application: I champion self-organization within the team. By giving engineers a voice in *how* the work is executed, team quality and engagement metrics show a marked increase.

Relevance to RTX: Direct experience leading highly technical teams, fostering a creative, accountable, and problem-solving organizational environment.

PROJECT DELIVERY CASE STUDY: ACCELERATED SYSTEMS INTEGRATION

Project: Complex Avionics Platform Delivery (Rockwell Collins) **Role:** Lead Project Engineer

1. SITUATION (The Challenge)

- **The Baseline:** The organization faced a critical avionics initiative estimated to require **24 months** for completion using traditional waterfall methodologies.
- **The Constraint:** The project operated under strict "Design to Cost" targets and required verification for flight safety.

2. ACTION (The Strategy)

- **Process Transformation:** I authored and implemented an Agile Systems Development Plan (SDP), effectively shifting the team from a rigid waterfall workflow to an iterative model. This allowed for earlier detection of integration errors.
- **Lean Implementation:** I led with Lean principles and Test Driven Development (TDD) to reduce "work in progress" and eliminate engineering waste. This directly addresses the requirement to "lead continuous improvement projects".
- **Scope & Cost Management:** I utilized Earned Value Management Systems (EVMS) to provide real-time visibility into cost/schedule variances. This allowed me to make data-driven decisions on scope adjustments rather than reacting to late surprises.

3. RESULT (The Outcome)

- **Schedule Acceleration:** The project was successfully delivered in **18 months**—a **25% reduction** in schedule against the initial 24-month estimate.
- **Budget Integrity:** Despite the accelerated timeline, the project remained strictly on-budget due to reduced rework cycles.
- **Customer Impact:** By delivering functioning product increments early (a core "Crucial C" principle), we validated customer requirements sooner, ensuring the final delivery met the *actual* mission need rather than just the initial spec.

4. RELEVANCE TO ADVANCED PACKAGING ROLE

- **Transferable Methodology:** While the domain was avionics systems, the core levers of success—managing the critical path, reducing cycle time, and rigorous EVMS tracking—are directly applicable to managing the timeline of Microelectronics and IC packaging cycles.
- **Bridging the Gap:** This demonstrates my ability to "oversee performance of assigned project tasks (technical, cost, schedule)" regardless of the underlying technology stack.

"You have a lot of software background. How will you lead a team of hardware engineers doing RF packaging?"

> "That's exactly why I'm valuable to this team. You have brilliant technical fellows handling the microelectronics physics. You don't need another micromanager checking their math.
>
> What this role needs—and what the job description emphasizes—is **transitioning technology into products** and **managing schedule and cost**.
>
> My strength is **Systems Engineering**. I can look at a 2.5D package and translate that technical spec into a 'mission capability' that a Program Manager understands and wants to buy. I bridge the gap between the lab and the customer."

"A potential activity is reviewing test plans for RF components—do you have experience with that?"

> "While I haven't designed RF circuits myself, my experience as a Systems Engineer for avionics and the JTRS radio system, required me to manage the integration and verification of highly complex, safety-critical systems. I know what a rigorous verification campaign looks like, and I know how to ask the right questions to ensure we aren't missing requirements. My role is to ensure the **process** of verification is sound so the experts can do their best work."

"Our team creates 2.5D/3D IC packages. You haven't done that. How can you coach them?"

> "You have Technical Fellows for the physics. You need me for the execution. My role is to remove blockers, manage the 'Design to Cost' , and ensure the Verification Campaign generates the data we need to win bids. I'll coach the process so they can focus on the innovation."

"We struggle to get Program Managers to adopt our tech. How would you fix that?"

> "By translating 'packaging' into 'performance.' I would work with the PIs to translate our thermal/size reductions into system-level metrics—like 'increased range' or 'reduced payload weight'. That is the language Program Managers speak."

"How do you handle underperforming engineers?"

> "I use the 'Capable' pillar of my framework. First, I check if they have the resources and clear requirements. If they do, then we look at fit. I believe clear expectations—like 'a status report is a functioning product'—usually solve performance issues before they require disciplinary action."

"Anything else?"

"I'm very excited about the technology you're building. I know that finding customers for R&D can be a hurdle. I want you to know that if you hire me, my Day 1 priority is to be the bridge—to take the incredible work this team does and package it in a way that Business Development can sell and Program Managers want to buy. I'm ready to get to work."