

Introduction to 5S



August 2017

‘5S is a system of steps and procedures that can be used by individuals and teams to arrange work areas in the best manner possible to optimize performance, productivity, and safety.’

Lean Principles → Reduce Waste

We have three main categories of assets and resources

1. Time
2. Money
3. Space

We have three main categories of assets and resources

1. Time 
2. Money 
3. Space 

We have three main categories of assets and resources

1. Time



2. Money



3. Space



8 Wastes: Lean Six Sigma



Inventory

Excess products and materials not being processed.



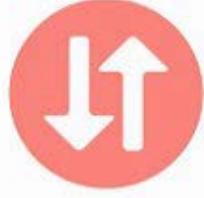
Talent

Underutilizing people's talents, skills, & knowledge.



Waiting

Wasted time waiting for the next step in a process.



Motion

Unnecessary movements by people (e.g., walking).



Defects

Efforts caused by rework, scrap, and incorrect information



Transportation

Unnecessary movements of products & materials.



Overprocessing

More work or higher quality than is required by the customer.



Overproduction

Production that is more than needed or before it is needed.

8 Wastes: Lean Six Sigma



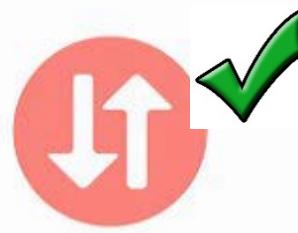
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Talent



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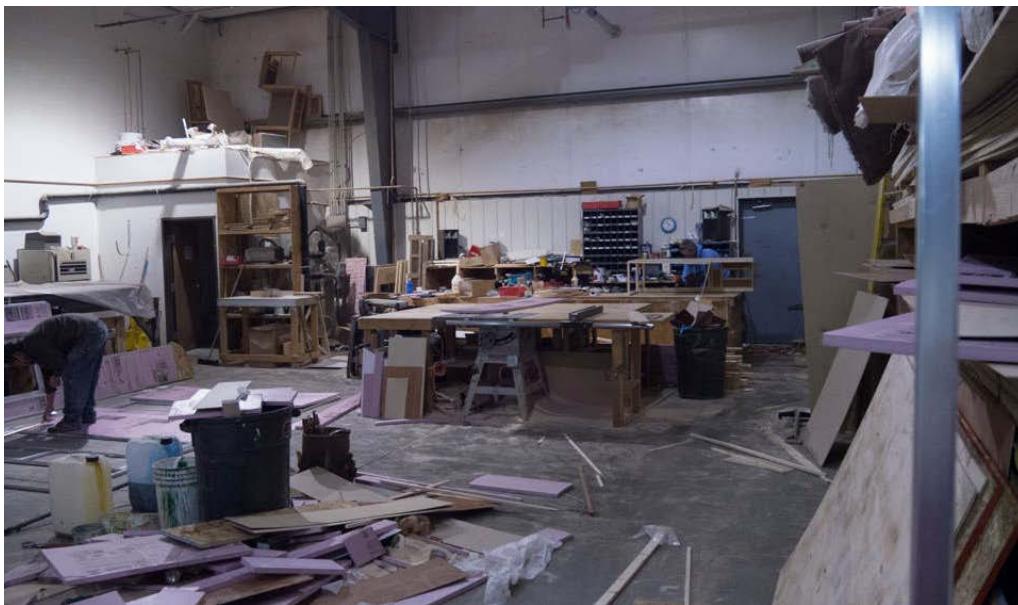


Overproduction

Production that is more than needed or before it is needed.

5S Definition

Japanese – S	Translation	English – S
Seiri	Organization	Sort
Seiton	Neatness	Simplify, Straighten, Set in Order
Seiso	Cleaning	Sweep, Shine
Seiketsu	Standardization	Standardize
Shitsuke	Discipline	Self-discipline, Sustain



5S - Sort

Identify and keep needed materials, tools, stored items and eliminate the rarely used or unneeded items.

5S
Sort
Simplify, Straighten
Sweep, Shine
Standardize
Self-discipline, Sustain

5S - Sort

Eliminate unused materials, tools, stored items

- Evaluate all items – keep the essential
- RED TAG - dispose of unneeded / rarely used items
- Ask if ‘stored items’ are valuable or just junk
- Contribute left over work materials to shop stock



5S - Sort

Make a plan for storage shelves (teams)

- Keep the essentials – RED TAG and toss the rest
- Use proper storage containers
- Label containers with owner, date, and contents
- Use space effectively, add shelves
- Observe clearance for aisles and ceiling



5S - Sort

Identify and keep needed materials, tools, stored items and eliminate the rarely used or unneeded items.

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5S – Simplify/Straighten

Make a plan for workspace activities

1. Do you have a plan for the overall workspace
2. Do you have a plan for work areas/zones
3. Do you have a plan for storage shelves (teams)

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5S – Simplify/Straighten

Make a plan for workspace (entire work area) use



Activity/Resource	A/B/C	SqFt
Tools	A	
Materials/Parts	A	
Papers/Design Notes	A	
Fabrication	B	
Work in Progress	A*	
Test	B	
Design/Meet	C	
Storage	C	

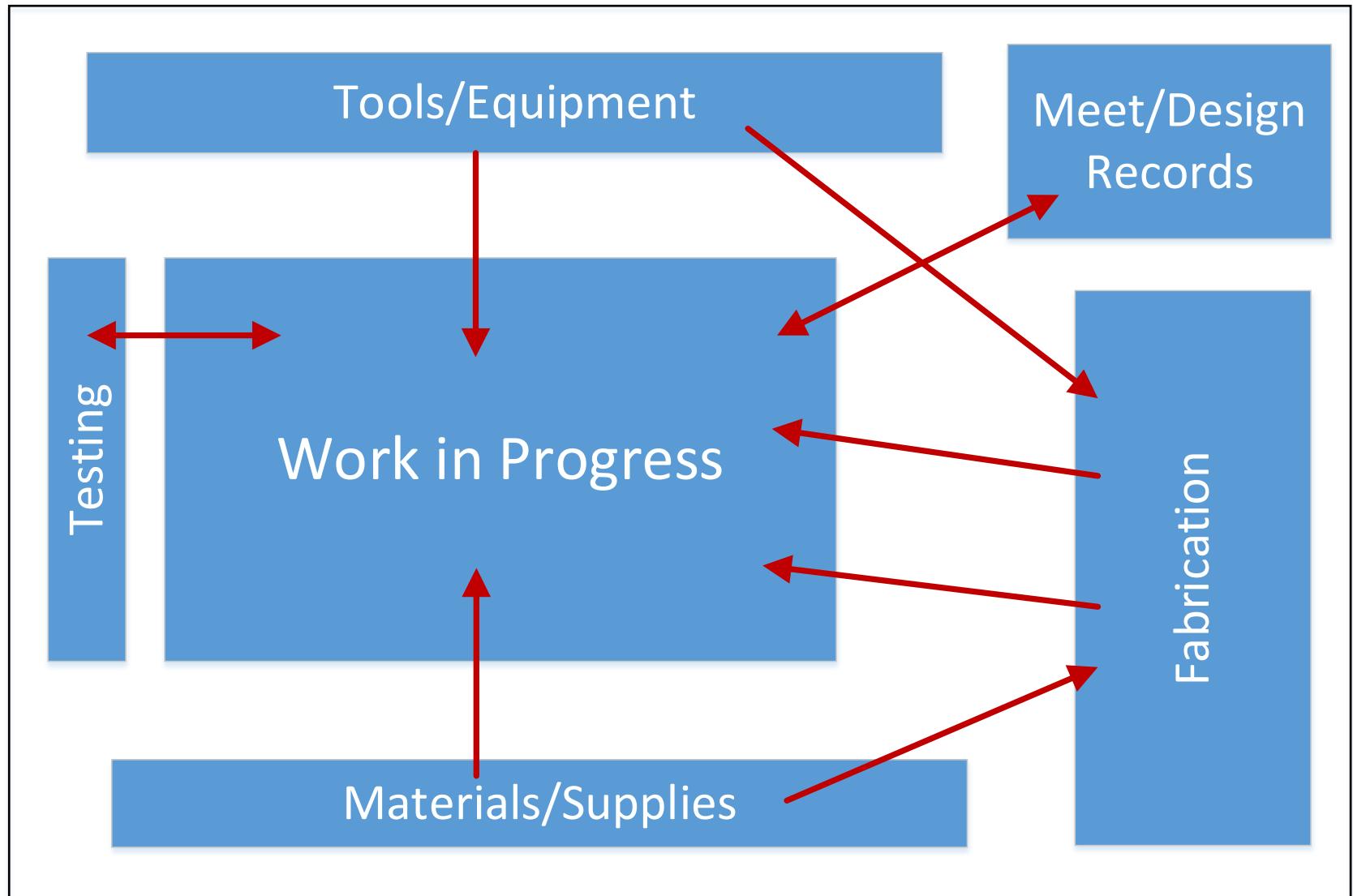
Tools/Equipment

Meet/Design
Records

Work in Progress

Fabrication

Materials/Supplies



Add additional temp work space with a rolling table



5S - Simplify, Straighten

Plan workspace (work bench) use



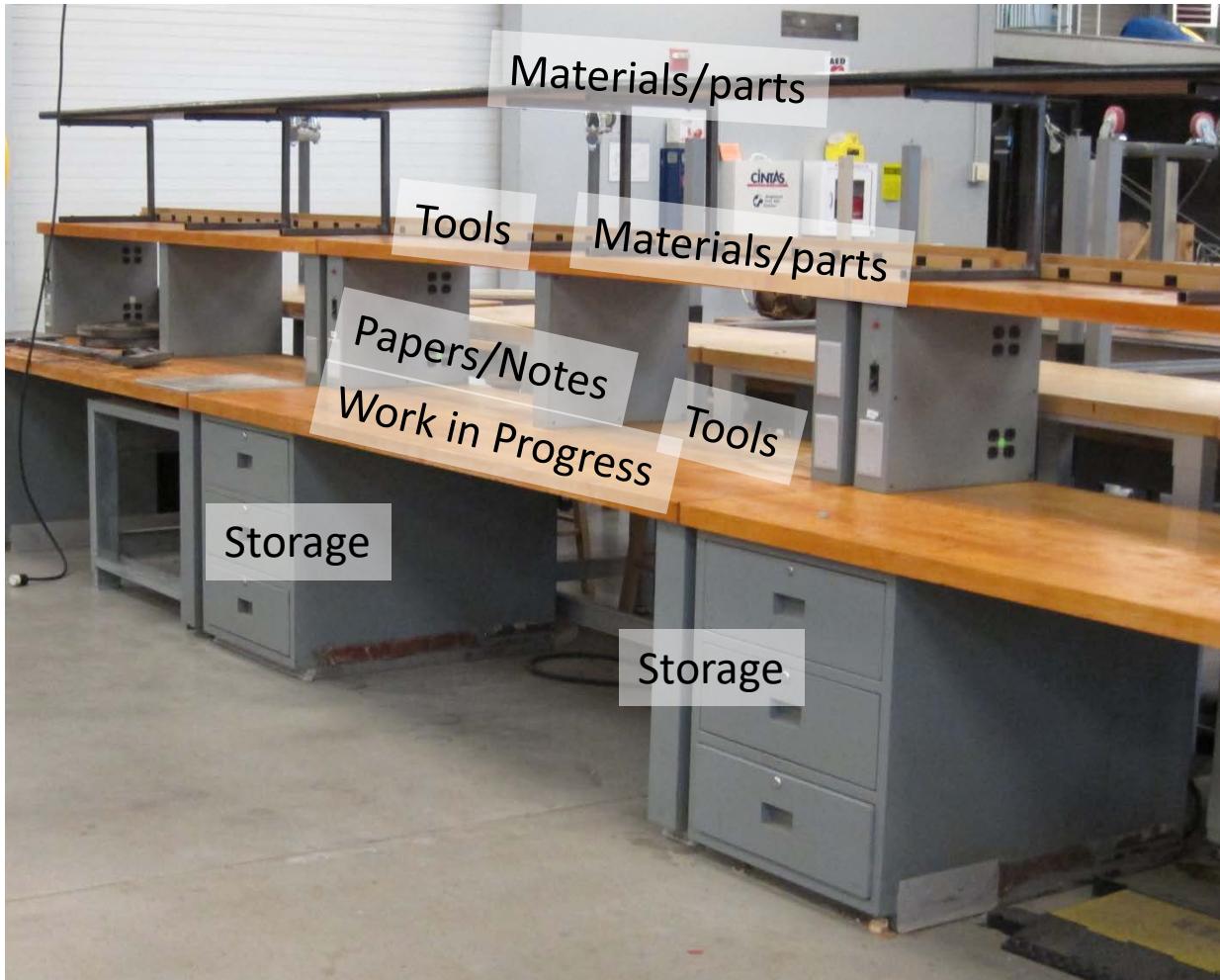
5S - Simplify, Straighten

Plan workspace (work bench) use



5S - Simplify, Straighten

Plan workspace (work bench) use



5S - Simplify, Straighten

Organize tools, materials, and supplies

1. Work bench use- keep things neat and in place
 - Use storage containers with hinged tops
 - Use bins or trays – visible and available
 - Don't use cardboard boxes or plastic bags
 - Put labels on things
2. Simplify – arrange items by frequency of use and reduce tool, material, and supply needs

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Sweep, Shine
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5S – Sweep/Shine

1. Visually - things in order, aligned, clean ?
2. Physically - clean, sweep, and shine

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 Sweep, Shine
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5S – Standardize

1. Develop standard processes for working and communicating
2. Put labels on everything – locations, bins, trays
 - Labels have similar size and format
 - Include: date, owner, contents
3. Immediate visual feedback

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5S – Standardize



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5S – Sustain

Hold the Gains !



5S

- Sort
- Simplify, Straighten
- Sweep, Shine
- Standardize
- Self-discipline, Sustain



5S – Sustain

1. Only buy what you need
2. Where will it go ?



Ball of String

- 10 pounds
- ~30,000 feet

5S – Sustain

1. 5S is a priority !
2. A habit/skill for all – not a project for a few
3. Do your own audits

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The 5S Ideal

The 5S ‘ideal’ is organized,
efficient, visible, neat, clean

Summary of 5S Key Points

- Goal is effective use of space and reduce waste
- Five key activities
- Immediate visual feedback
- Work toward and maintain the ideal
- Audit your own 5S performance
- Training for all students on teams, clubs, projects

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Take and pass the quiz

5S

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