



Savoir-faire  
**LINUX**®



odoo

**ICTC Training program**

# Versioning

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<b><i>Version</i></b>	<b>Date de version</b>	<b>Auteur / Contributeurs</b>	<b>Nature des modifications</b>
2	2017-04-07	Carolandrea Guerrero Mickaël Brard Julien Jézéquel-Bréard	Diffusion initiale

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*Manufacturing Management*



# Outcomes

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- Planning, coordination, and control of manufacturing activities.
- Monitoring and improving productivity.
- Applying techniques on creating layouts and work routes that promote the efficient use of equipment, material and people.

# Manufacturing Strategy

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## Operations Strategies

### 1. Product Planning

- Product Positioning and range strategy
- Marketing Mix
- Forecasting and production planning

### 2. Production Process

- Lean Management
- Inventory Process
- Supply Chain Management
- Quality Process
- Clerical Procedures
- Production Planning and Scheduling

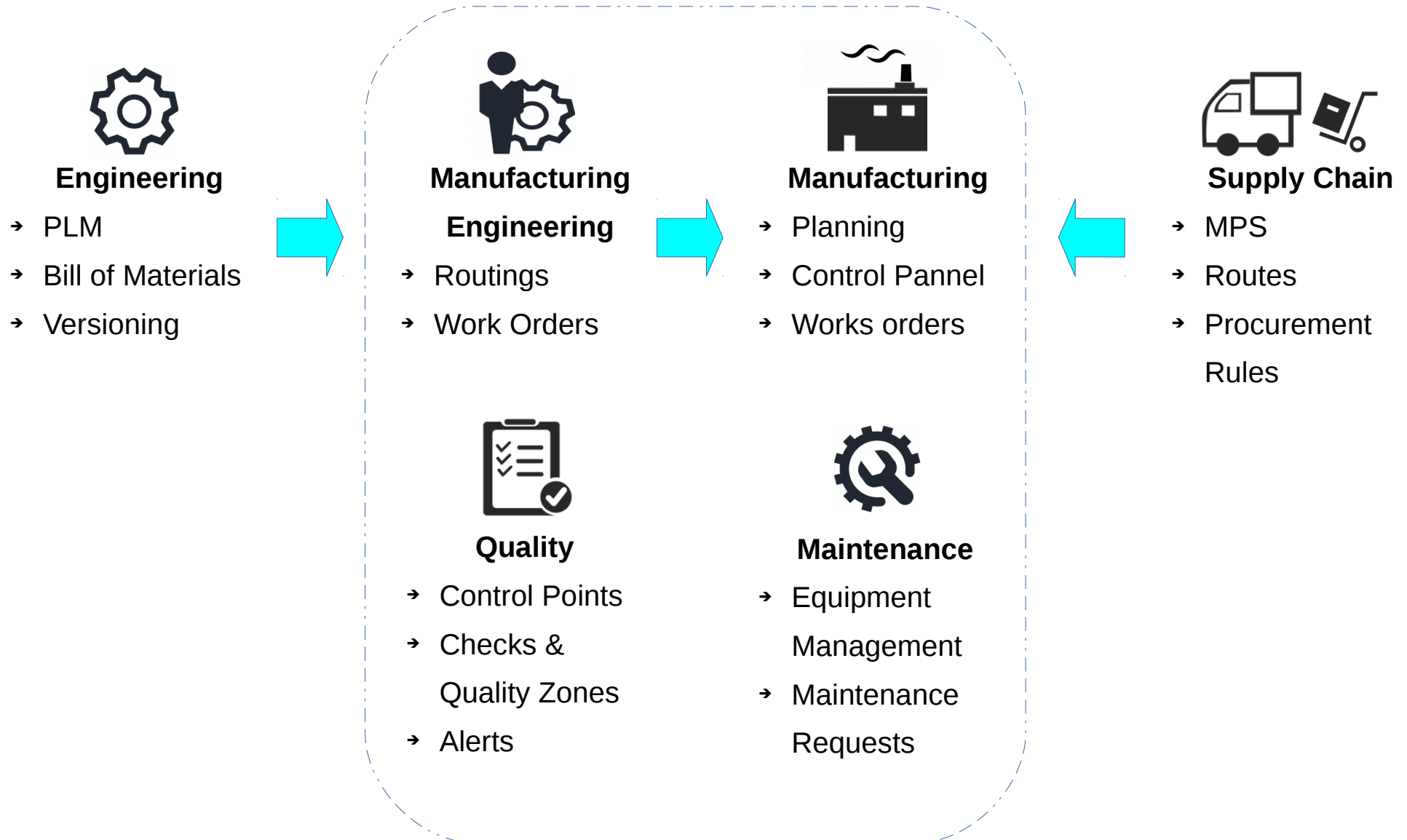
### 3. Infrastructure

- Facilities & Equipment
- Work structuring
- Plant Maintenance
- Production Control

### 4. Improvement

- Agile Manufacturing
- Customer Lean Time
- Internal Line Time
- Internal Processes
- Manufacturing Cost

# odoo Manufacturing



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***Product Lifecycle Management  
(PLM)***

# PLM

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- Manage product design and prototyping
- Manage engineering changes, versions, and documents
- Manage several versions of the same BoM in parallel and apply only the differences to manage multiple changes (versioning)
- Document management for drawings, worksheets, and quality documents

Product

+

Process

+

People

+

Data

= PLM



# odoo Engineering Change Orders

The screenshot shows the Odoo Engineering Change Order (ECO0013) form. The top navigation bar includes 'PLM', 'Dashboard', 'Changes', 'Master Data', 'Reporting', and 'Configuration'. The breadcrumb trail is 'PLM Dashboard / Engineering Change Orders / ECO0013'. The form has tabs for 'NEW', 'ENGINEERING', 'RE-TOOL MACHINERY', 'EFFECTIVE', and 'REFUSED', with 'ENGINEERING' currently selected. The form details include: Type: New Product Introduction; Apply on: Bill of Materials; Product: [PCSC234] Computer SC234; Bill of Materials: [PCSC234] Computer SC234; Responsible: Administrator; Effectivity: As soon as possible; Tags: Computer. Below the form, there is a table with columns 'Product' and 'Quantity'. The table contains two rows: '[RAM-SR5] RAM SR5' with a quantity of 1.00, and '[E-COM14] Laptop Keypad' with a quantity of -1.00.

Product	Quantity
[RAM-SR5] RAM SR5	1.00
[E-COM14] Laptop Keypad	-1.00

- ➔ Managing engineering changes efficiently across multiple departments
- ➔ Following and approvals are simple
- ➔ Discussions on documents are centralized and in real time

The screenshot shows the Odoo Engineering Change Orders dashboard. The top navigation bar includes 'PLM', 'Dashboard', 'Changes', 'Master Data', 'Reporting', and 'Configuration'. The breadcrumb trail is 'PLM Dashboard / Engineering Change Orders'. The dashboard has tabs for 'NEW', 'Engineering', 'Re-tool Machinery', 'Effective', and 'REFUSED (2)'. The 'Engineering' tab is currently selected. The dashboard displays a grid of ECOs with their IDs, BoM, and user avatars. The ECOs are: ECO0002 (BoM: [E-COM07] iPad Mini), ECO0003 (BoM: [FURN001] Computer Desk), ECO0007 (BoM: [HDD-SH1] HDD SH-1), ECO0001 (BoM: [E-COM05] Bose Mini Bluetooth Speaker), ECO0004 (BoM: [PCSC234] Computer SC234), ECO0010 (BoM: [E-COM12] Self Build Kit), ECO0006 (BoM: [E-COM08] Apple In-Ear Headphones), ECO0009 (BoM: [LAP-E5] Laptop E5023), ECO0011 (BoM: [HDD-SH1] HDD SH-1), and ECO0012 (BoM: [HDD-DEM] HDD on Demand).

ECO ID	BoM	User
ECO0002	[E-COM07] iPad Mini	[User]
ECO0003	[FURN001] Computer Desk	[User]
ECO0007	[HDD-SH1] HDD SH-1	[User]
ECO0001	[E-COM05] Bose Mini Bluetooth Speaker	[User]
ECO0004	[PCSC234] Computer SC234	[User]
ECO0010	[E-COM12] Self Build Kit	[User]
ECO0006	[E-COM08] Apple In-Ear Headphones	[User]
ECO0009	[LAP-E5] Laptop E5023	[User]
ECO0011	[HDD-SH1] HDD SH-1	[User]
ECO0012	[HDD-DEM] HDD on Demand	[User]

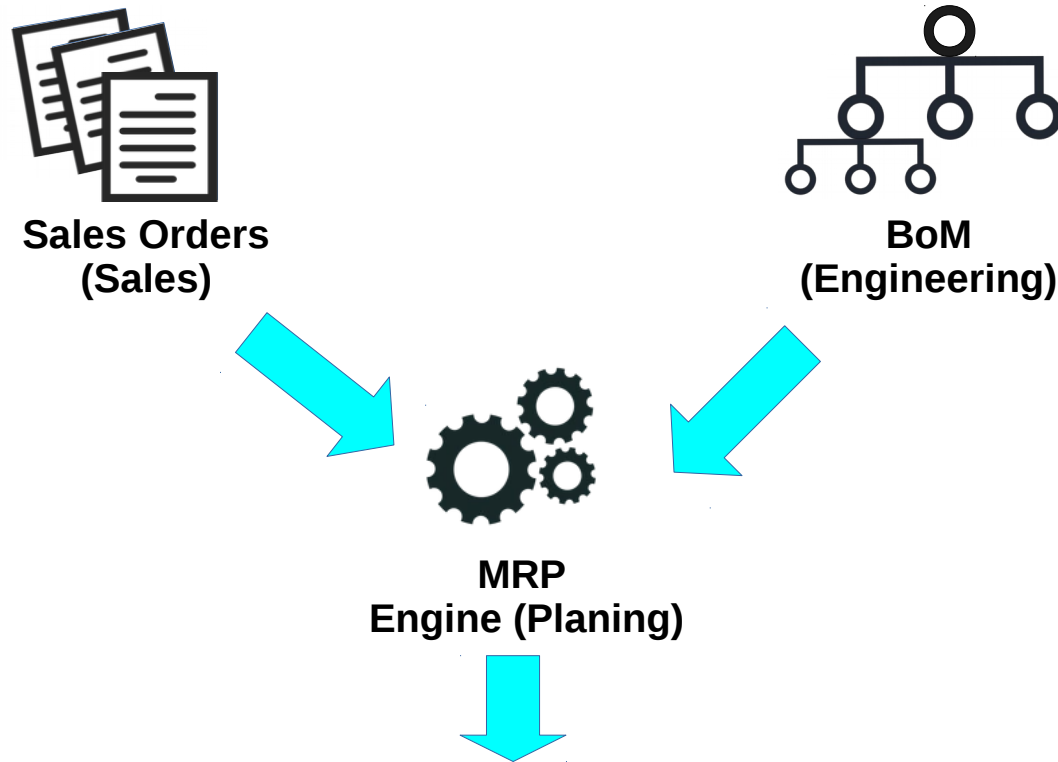
The background of the image is a dark, textured brick wall. The bricks are arranged in a standard running bond pattern, with visible mortar lines. The overall color is a dark charcoal or black, with some lighter grey tones in the mortar joints.

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*Material requirements planning  
(MRP)*

# MRP

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## MRP

- Routings, Manufacturing orders, and Work Orders (Production Operations)
- Quality Control Points and Maintenance Management (Production Control)
- Purchase Requisition (Material Control)
- Purchase Orders (Purchasing)
- Receiving, Inventory, Shipping = "Closed Loop MRP"
- Finances and Sales Order Management
- Cost Accounting



The background of the image is a dark, textured brick wall. The bricks are arranged in a standard running bond pattern, with visible mortar lines. The overall color is a dark charcoal or black, with some lighter grey tones in the mortar joints.

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*Bill of Materials vs. Kit*



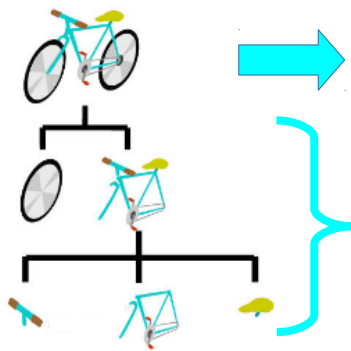
# Bill of Materials vs. Kit

1

Materials

Finished Product

## Bill of Materials (BoM)



Finished Product

Final output of a manufacturing process

Materials

Required input to manufacturing a product

2

Components

Set

## Set of Products as a Kit



Components



Brush set

Set of components that are described by a bill of materials, but which are delivered separately rather than assembled or mixed.

# odoo Bill of materials

Active

Cost Analysis

Unpublished On Website

1 Bill of Materi...

0 ECOs

0 Attachments

4 Manufacturi...

More

Scaffold

Can be Sold

Can be Purchased

GENERAL INFORMATIONINVENTORYSALESVARIANTSISSUINGNOTES

Product TypeStockable Product

Internal Reference

Barcode

Sale Price1,500.00\$

Cost0.00\$

Companyedu-TEST-INVENTORY

Unit of MeasureUnit

Purchase Unit of MeasureUnit

Control Purchase BillsOn received quantities

Products / Scaffold / Bill of Materials

CREATEIMPORT

Product

Scaffold

Products / Scaffold / Bill of Materials / Scaffold

EDITCREATE

PrintAttachment(s)Action

Active

0 ECO(s)

ProductScaffold

Product Variant

Quantity1.00 Unit

Reference

BoM TypeManufacture this product

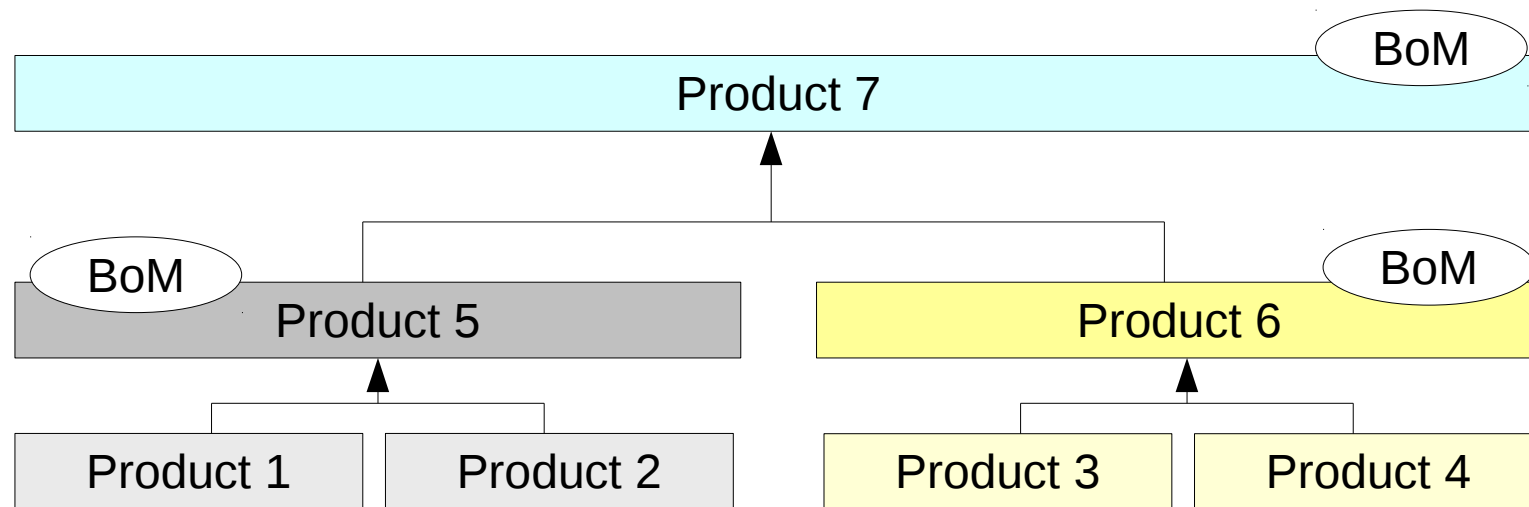
Companyedu-TEST-INVENTORY

COMPONENTSMISCELLANEOUS

Product	Product Quantity	Product Unit of Measure	Variants
Structure bar for scaffold	4.000	Unit	
Pad for scaffold	1.000	Roll	

# Concept of Multi-level Bill of Materials

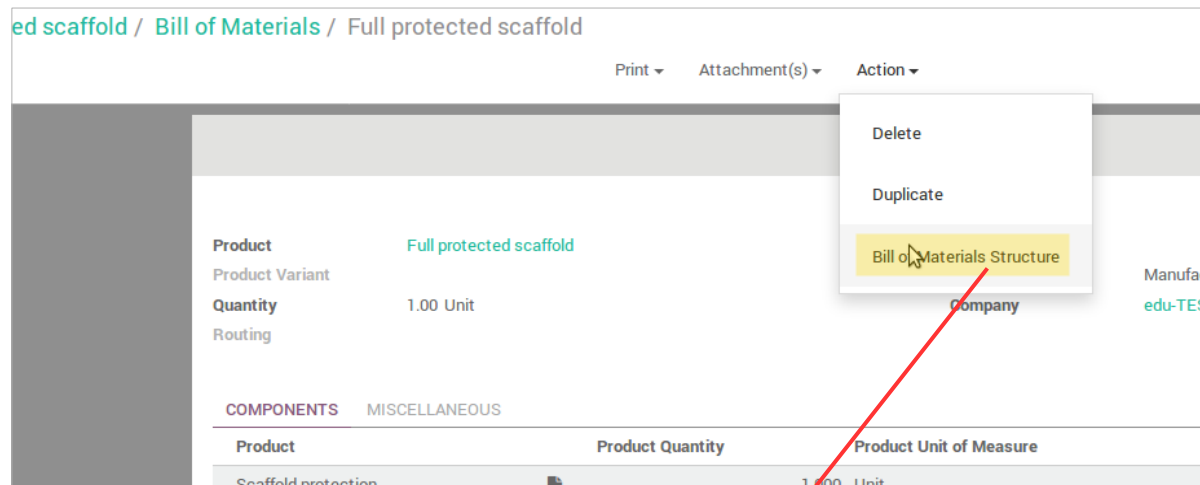
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- The product 5 is the result of a manufacturing process composed of products 1 and 2
- The product 6 is the result of a manufacturing process composed of products 3 and 4
- The product 7 is the result of a manufacturing process composed of products 5 and 6
- When creating a manufacturing order for Product 6, Odoo will also create automatically a manufacturing order for Product 3 (Phantom BoM)

# odoo View of BOMs Structure

From the BoM form, you can access the view of the BoM Structure. If the BoM is composed of subassembly products, you will see the detail of these subassemblies.



Bill of Materials Str... x +

https://edu-test-inventory.odoo.com/web#view\_type=tree&model=mrp.bom.line&action=453&active\_id=8&menu\_id=294

Rechercher

Les plus visités Débuter avec Firefox Alfresco » User Dashb... Zimbra: Boîte de réce... Redmine Odoo Education: free...

Manufacturing Dashboard Operations Planning Master Data Reporting Configuration

Products / Full protected scaffold / Bill of Materials / Full protected scaffold / Bill of Materials Structure

Product	Product Quantity	Product Unit of Measure	Routing
▼ Scaffold protection		1.000 Unit	
canva fixation		8.000 Unit	
Protective canva		1.000 Unit	
▼ Scaffold		1.000 Unit	
Structure bar for scaffold		4.000 Unit	
Pad for scaffold		1.000 Roll	



# odoo Using Phantom BoM

When a multi-level BoM is recorded, a manufacturing order created for the final product will create automatically manufacturing orders for subassembly products. The Manufacturing Order for the final product is referenced as the source for subassembly MO that was automatically created.

**MO/00011**

Product	Full protected scaffold	Deadline Start	03/13/2017 10:33:52
Quantity To Produce	3.000 Unit <a href="#">Update</a>	Responsible	jjezequelbreard@gmail.com
Bill of Material	Full protected scaffold	Source	
Routing		Company	edu-TEST-INVENTORY

CONSUMED MATERIALS   FINISHED PRODUCTS   MISCELLANEOUS

Picking Type	WH Canadian Colors: Manufacturing	Availability	Waiting
Raw Materials	WH/Stock		
Location			
Finished Products	WH/Stock		
Location			

Manufacturing

Dashboard

Operations

Planning

Master Data

Reporting

Configuration

jjezequelbreard@gmail.c

Manufacturing Orders

To Do

Search...

CREATE

IMPORT

Filters

Group By

Favorites

1-3 / 3

<input type="checkbox"/> Reference	Deadline Start	Product	Quantity	Unit of Measure	Availability	Routing	Source	State
<input type="checkbox"/> MO/00012	03/13/2017 10:33:52	Scaffold protection	3.000	Unit	Waiting	2 MO for subassembly products were automatically created by the system	MO/00011:MO/00011	Confirmed
<input type="checkbox"/> MO/00013	03/13/2017 10:33:52	Scaffold	3.000	Unit	Waiting		MO/00011:MO/00011	Confirmed
<input type="checkbox"/> MO/00011	03/13/2017 10:33:52	Full protected scaffold	3.000	Unit	Waiting			Confirmed
Initial Manufacturing order								

# Exercise : Recording Bill of Materials

Canadian Color wants to sell scaffolds. They want to track the production activity in their system.

Also, they want to offer 2 options and an accessory that could be sold as a product or sell with a scaffold. Here are the details of their goals as for these new products :

- Scaffold (stockable product that is not only sold separately but also produced)
  - Scaffold platform (x2 units) : stockable material that can be purchased. Quantity on hand: 150
  - Structure scaffold bar (x8 units) : stockable material that can be purchased. Quantity on hand: 200
  - ➔ Sale price : 1.500 CAD
- Scaffold protection tarp (stockable material that is not only sold separately or included in the full protected Scaffold but also produced) :
  - Protection tarp (x1 unit) : stockable material that can be purchased. Quantity on hand:100
  - Tarp fixations (x8 units) : stockable material that can be purchased. Quantity on hand:200
  - ➔ Sale price : 500 CAD
- Full protected scaffold (stockable material that is not only sold but also produced) :
  - Scaffold (x1 unit)
  - Scaffold protection scarp (x1 unit)
  - ➔ Sales price : 2.500 CAD

# Exercise : Recording Bill of Materials

## TO DO :

- Use the components to create each product and BoMs.
- When you have done the Scaffold and the Scaffold protection tarp, process the last product.
- Use only Manufacture BoM option.
- All products are stockable products.
- You will launch a production order if you only have a valid customer order.

**Example :** First, create the Scaffold platform, then the Scaffold structure bar, and finally the Scaffold and the BoM.

# odoo Create a BoM

Products / Scaffold

EDIT CREATE

Print Attachment(s) Action

UPDATE QTY ON HAND PROCUREMENT REQUEST

Active Cost Analysis Unpublished On Website 1 Bill of Materi... 0 ECOs 0 Attachments

Scaffold

☒ Can be Sold  
☐ Can be Purchased

GENERAL INFORMATION INVENTORY SALES VARIANTS INVOICING NOTES

Product Type Stockable Product

Internal Reference

Barcode

Sale Price 1,500.00\$

Cost 0.00\$

Company edu-TEST-INVENTORY

Unit of Measure Unit

Purchase Unit of Measure Unit

Control Purchase Bills On re

Manufacturing Dashboard Operations Planning Master Data Reporting Cor

Products / Scaffold / Bill of Materials

CREATE IMPORT

☐ Product ▲ Reference Product Variant

Products / Scaffold / Bill of Materials / Scaffold

SAVE DISCARD

Active 0 ECO(s)

Product Scaffold

Product Variant

Quantity 1.00 Unit

Routing

Reference BoM Type Manufacture this product

Ship this product as a set of components (kit)

Company edu-TEST-INVENTORY

COMPONENTS MISCELLANEOUS

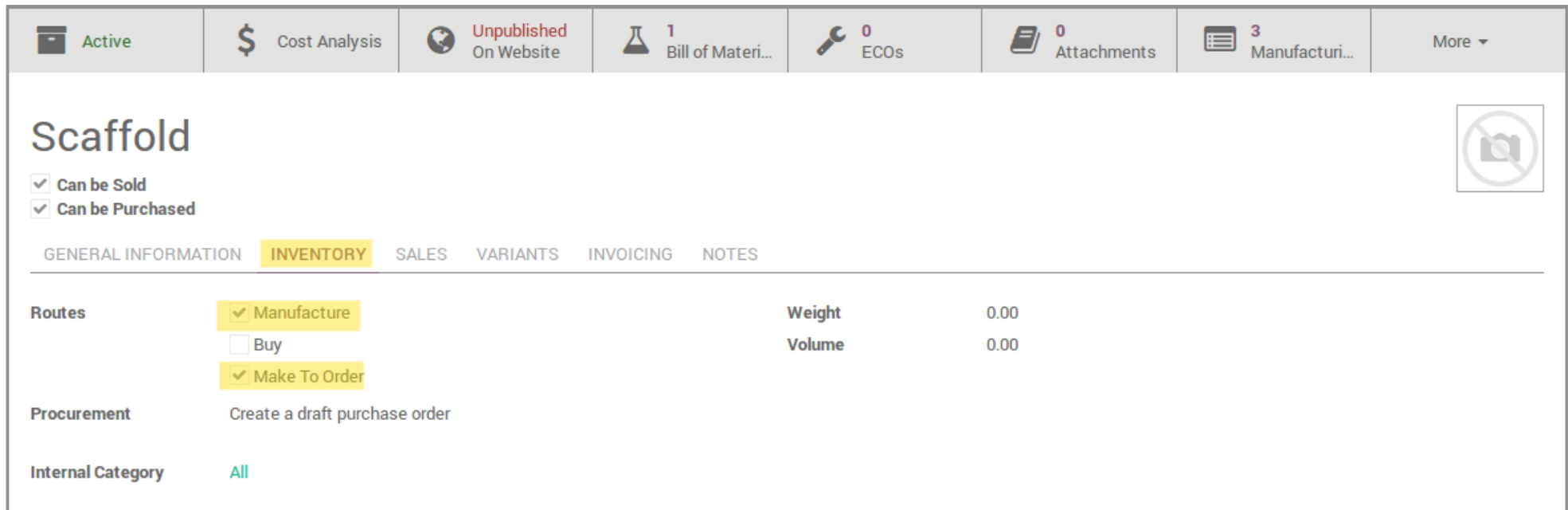
Product	Product Quantity	Product Unit of Measure	Variants	Consumed in Operation
Structure bar for scaffold	4.000	Unit		
Pad for scaffold	1.000	Roll		

Add an item

Select the components of your BoM and quantities



# odoo Triggering a manufacturing order



The screenshot shows the Odoo product form for 'Scaffold'. The top bar includes status indicators: Active, Cost Analysis, Unpublished On Website, 1 Bill of Material, 0 ECOs, 0 Attachments, and 3 Manufacturing Orders. The 'INVENTORY' tab is selected, showing 'Routes' with 'Manufacture' and 'Make To Order' checked, and 'Buy' unchecked. 'Weight' and 'Volume' are both 0.00. The 'Procurement' section shows 'Create a draft purchase order'. The 'Internal Category' is 'All'.

GENERAL INFORMATION		INVENTORY		SALES		VARIANTS		INVOICING		NOTES	
Routes	<input checked="" type="checkbox"/> Manufacture	Weight	0.00								
	<input type="checkbox"/> Buy	Volume	0.00								
	<input checked="" type="checkbox"/> Make To Order										
Procurement	Create a draft purchase order										
Internal Category	All										


- When you select 'Make to Order' on the product form for a manufactured product, the confirmation of a sale triggers a manufacturing order automatically.
- The manufacturing order will be linked to the sale order.

# odoo Triggering a manufacturing order

Quotations / SO010

EDIT CREATE Print Attachment(s) Action

CREATE INVOICE PRINT SEND BY EMAIL CANCEL LOCK

 3 Delivery

**SO010**

Customer Canadian Art Inc Confirmation Date 03/10/2017 12:04:45  
Pricelist Public Pricelist (CAD)  
Payment Terms

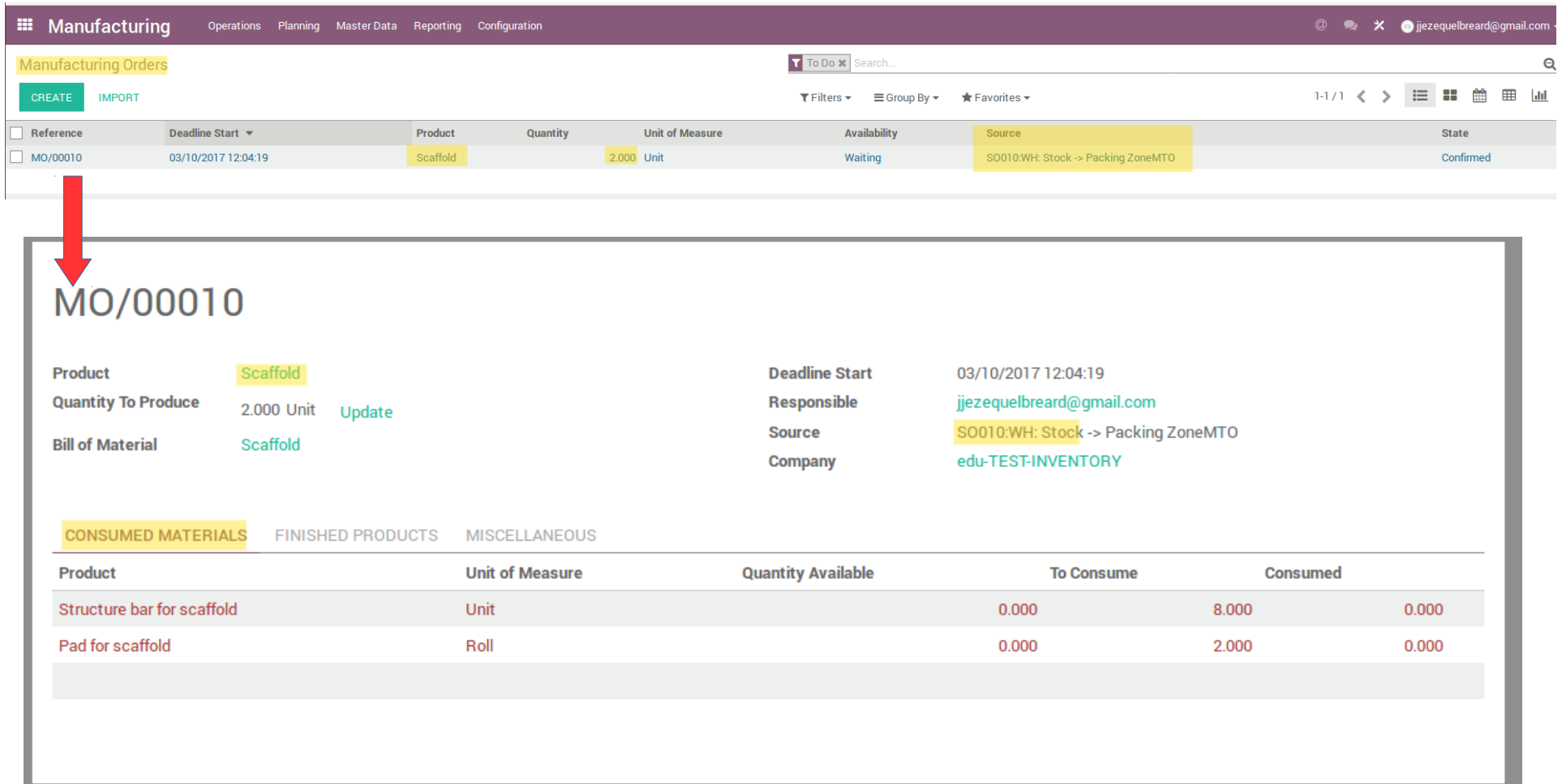
ORDER LINES OTHER INFORMATION

Product	Description	Ordered Qty	Unit of Measure	Analytic Tags	Unit Price	Taxes	Discount (%)	Subtotal
Scaffold	Scaffold	2.000	Unit		1,500.00	GST for sales - 5%	0.00	3,000.00

Untaxed Amount : 3,000.00\$  
Taxes : 150.00\$  
Total : 3,150.00\$

The quotation SO010 has been confirmed and convert into a sale order.

# odoo Triggering a manufacturing order



The screenshot displays the Odoo Manufacturing Orders interface. At the top, a navigation bar includes 'Manufacturing', 'Operations', 'Planning', 'Master Data', 'Reporting', and 'Configuration'. Below this, a 'Manufacturing Orders' section features 'CREATE' and 'IMPORT' buttons. A table lists manufacturing orders, with the first row highlighted: MO/00010, Deadline Start: 03/10/2017 12:04:19, Product: Scaffold, Quantity: 2.000, Unit of Measure: Unit, Availability: Waiting, Source: SO010:WH: Stock -> Packing ZoneMTO, and State: Confirmed. A red arrow points from this row to a detailed view of MO/00010. This view shows the product 'Scaffold', quantity '2.000 Unit', and deadline '03/10/2017 12:04:19'. It also lists the responsible user 'jjezequelbreard@gmail.com', source 'SO010:WH: Stock -> Packing ZoneMTO', and company 'edu-TEST-INVENTORY'. Below this, a table titled 'CONSUMED MATERIALS' shows the bill of materials for the scaffold, including 'Structure bar for scaffold' and 'Pad for scaffold'.

Reference	Deadline Start	Product	Quantity	Unit of Measure	Availability	Source	State
MO/00010	03/10/2017 12:04:19	Scaffold	2.000	Unit	Waiting	SO010:WH: Stock -> Packing ZoneMTO	Confirmed

**MO/00010**

Product: Scaffold  
Quantity To Produce: 2.000 Unit [Update](#)  
Bill of Material: Scaffold

Deadline Start: 03/10/2017 12:04:19  
Responsible: jjezequelbreard@gmail.com  
Source: SO010:WH: Stock -> Packing ZoneMTO  
Company: edu-TEST-INVENTORY

Product	Unit of Measure	Quantity Available	To Consume	Consumed
Structure bar for scaffold	Unit	0.000	8.000	0.000
Pad for scaffold	Roll	0.000	2.000	0.000

When a manufacturing order is created in the system, the original sale order (e.g. SO010) is referenced as the document source of this production operation.

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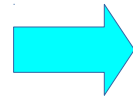
*Manufacturing Management*



# Work order vs. Manufacturing order

The system allows managing only one manufacturing team without tracking the detail of operations or setting work centers as specific production units.

Using the work center module, you can set the plants capacity (defined by resources and their availability)



The screenshot shows the 'Manufacturing' configuration page. At the top, there is a navigation bar with 'Dashboard', 'Operations', 'Planning', 'Master Data', 'Reporting', and 'Configuration'. Below this, there are 'APPLY' and 'CANCEL' buttons. A 'Settings' button is highlighted with a red box and a mouse cursor. The main content area is divided into sections: 'Logistics' (with 'Manufacturing Lead Time \*' set to '0.00'), 'Manufacturing Order' (with 'Product Variants' and 'By-Products' options), 'Routings & Planning' (with 'Manage production by manufacturing orders' and 'Manage production by work orders' options), and 'Extra Features' (with 'Master Production Schedule', 'PLM', 'Maintenance', and 'Quality' options). The 'Manage production by work orders' option in the 'Routings & Planning' section is highlighted with a red box.

**Manufacturing** Dashboard Operations Planning Master Data Reporting Configuration

APPLY CANCEL

Settings

Productivity Losses

**Logistics**

Manufacturing Lead Time \* 0.00

**Manufacturing Order**

**Product Variants**

- ☐ No variants on products
- ☒ Products can have several attributes, defining variants (Example: size, color,...)

**By-Products**

- ☒ No by-products in bills of materials (A + B --> C)
- ☐ Bills of materials may produce residual products (A + B --> C + D)

**Routings & Planning**

- ☐ Manage production by manufacturing orders
- ☒ Manage production by work orders

**Extra Features**

**Master Production Schedule**

- ☒ No need for Master Production Schedule as products have short lead times
- ☐ Use Master Production Schedule in order to create procurements based on forecasts

**PLM**

- ☐ No product lifecycle management
- ☒ Manage engineering changes, versions and documents

**Maintenance**

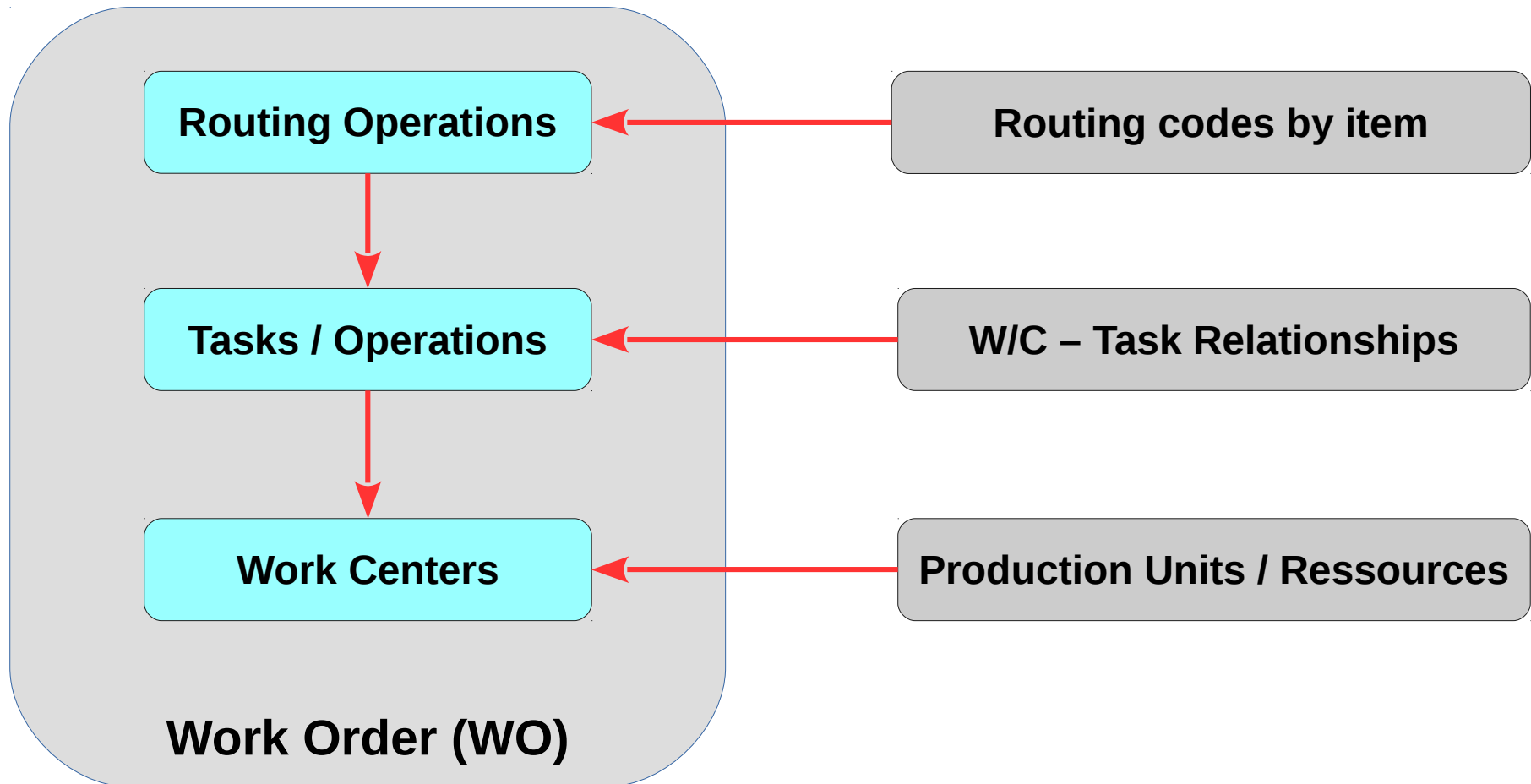
- ☒ No maintenance machine and work centers
- ☐ Preventive and Corrective maintenance management

**Quality**

- ☐ No quality control
- ☒ Manage quality control points, checks and measures

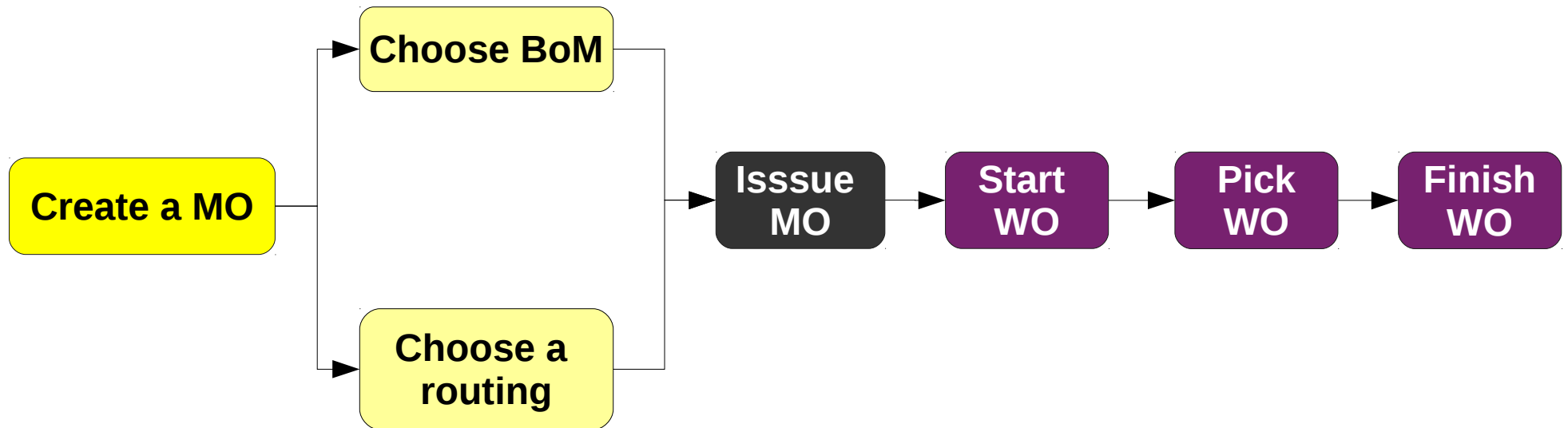
# Production Operations

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# Manufacturing Order Process

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# Exercise : Configure your work centers

Canadian Color wants to track its production activities. It consists of 2 mains activities :

- Collecting components (code CO-01)
- Assembling components (code AS-01)

## TO DO :

- Create the 2 work centers to track these activities
- Here is the routing to create to fit with the 2 operation types :
  - Components are gathered (work center CO-01)
  - Products are assembled (work center AS-01)
- Create the routing with the two operations. Name the routing as to identify it easily (example : default production route)

Now your system is functional and should be responding your company needs for manufacturing.

- Create a sale order for one of your client for the product 'Full protected scaffold' (15 units). Confirm the sale.

You should be able to find 3 manufacturing orders : one for Scaffold, one for Scaffold protection tarp and one for full protected scaffold.

- Process the manufacturing orders. Begin with the ones available.

# odoo Process manufacturing orders

Click on the MO in the list view

Manufacturing Orders					
<a href="#">CREATE</a> <a href="#">IMPORT</a>					
<input type="checkbox"/>	Reference	Deadline Start ▼	Product	Quantity	Unit
<input type="checkbox"/>	MO/00016	03/14/2017 13:36:26	Scaffold	5.000	Unit

Click on  
[Plan] and  
then click on  
[Work orders]  
to edit them

**Manufacturing** [Dashboard](#) [Operations](#) [Planning](#) [Master Data](#) [Reporting](#) [Configuration](#)

Manufacturing Orders / MO/00016

[EDIT](#) [CREATE](#) [Print](#) [Attachment\(s\)](#) [Action](#)

[CHECK AVAILABILITY](#) [PLAN](#) [CANCEL](#) [SCRAP](#) [QUALITY ALERT](#)

MO/00016

Product

Quantity To Produce

Bill of Material

Routing

Scaffold

5.000 Unit [Update](#)

Scaffold

Default production route

Deadline Start

Responsible

Source

Company

03/14/2017 13:36:26

[jjezequelbreard@gmail.com](mailto:jjezequelbreard@gmail.com)

SO012:WH: Stock -> Packing ZoneMTO

edu-TEST-INVENTORY

CONSUMED MATERIALS

FINISHED PRODUCTS

MISCELLANEOUS

Product	Unit of Measure	Quantity Available	To Consume	Consumed
Structure bar for scaffold	Unit	0.000	20.000	0.000
Pad for scaffold	Roll	0.000	5.000	0.000

0 / 2 Work Orders

# odoo Find manufacturing orders

View of manufacturing orders:

Manufacturing

Dashboard

Operations

Planning

Master Data

Reporting

Configuration

Manufacturing Orders

CREATE

IMPORT

Reference

Deadline Start

MO/00015

03/14/2017 13:36:26

MO/00016

03/14/2017 13:36:26

MO/00014

03/14/2017 13:36:26

Manufacturing Orders

Work Orders

Unbuild Orders

Scrap

Workorder Messages

Quantity

Unit of Measure

5.000

Unit

5.000

Unit

ffold

5.000

Unit

15.000



# odoo Process manufacturing orders

Click on the MO in the list view

Manufacturing Orders					
<a href="#">CREATE</a> <a href="#">IMPORT</a>					
<input type="checkbox"/>	Reference	Deadline Start ▼	Product	Quantity	Unit
<input type="checkbox"/>	MO/00016	03/14/2017 13:36:26	Scaffold	5.000	Unit

Click on  
[Plan] and  
then click on  
[Work orders]  
to edit them

**Manufacturing** [Dashboard](#) [Operations](#) [Planning](#) [Master Data](#) [Reporting](#) [Configuration](#)

Manufacturing Orders / MO/00016

[EDIT](#) [CREATE](#) [Print](#) [Attachment\(s\)](#) [Action](#)

[CHECK AVAILABILITY](#) [PLAN](#) [CANCEL](#) [SCRAP](#) [QUALITY ALERT](#)

MO/00016

Product

Quantity To Produce

Bill of Material

Routing

Deadline Start

Responsible

Source

Company

Scaffold

5.000 Unit [Update](#)

Scaffold

Default production route

03/14/2017 13:36:26

[jjezequelbreard@gmail.com](mailto:jjezequelbreard@gmail.com)

SO012:WH: Stock -> Packing ZoneMTO

edu-TEST-INVENTORY

CONSUMED MATERIALS

FINISHED PRODUCTS

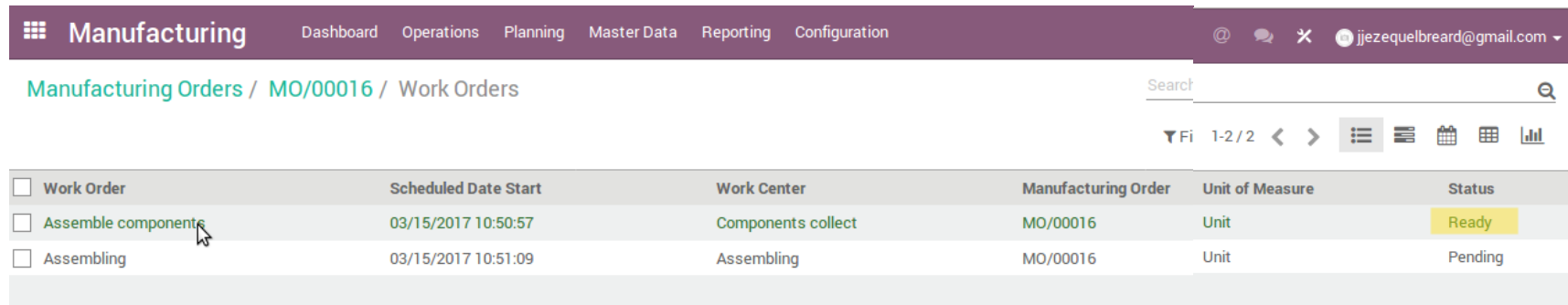
MISCELLANEOUS

Product	Unit of Measure	Quantity Available	To Consume	Consumed
Structure bar for scaffold	Unit	0.000	20.000	0.000
Pad for scaffold	Roll	0.000	5.000	0.000

0 / 2 Work Orders

# odoo Process manufacturing orders (1)

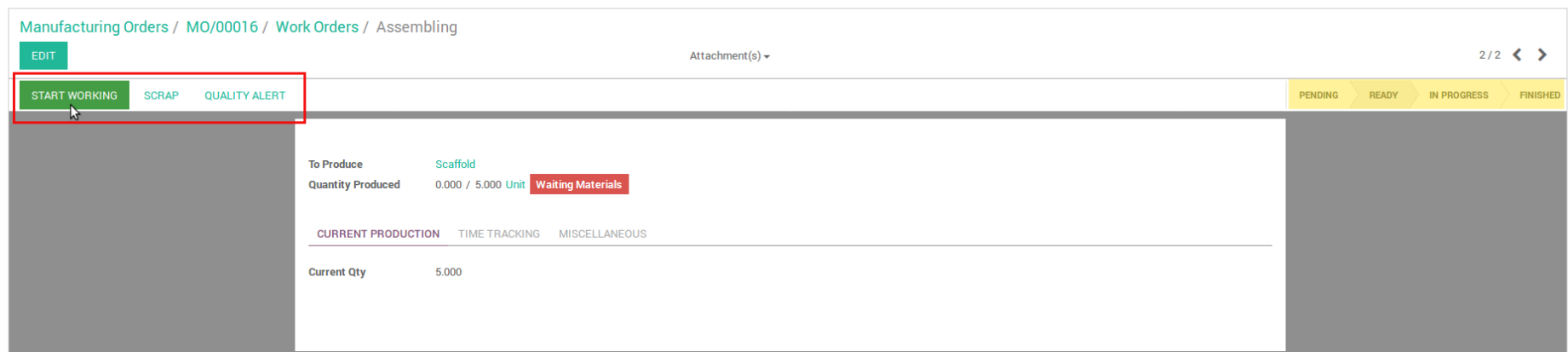
Click on the WO in the list view. You can only begin with the first operation of your routing. The WO is ready to start the process and pending for the next operation of the routing.



The screenshot shows the Odoo Manufacturing Orders interface. The top navigation bar includes 'Manufacturing', 'Dashboard', 'Operations', 'Planning', 'Master Data', 'Reporting', and 'Configuration'. The breadcrumb trail is 'Manufacturing Orders / MO/00016 / Work Orders'. A search bar is on the right. Below the navigation, there are icons for filters, list view, table view, calendar, and bar chart. The main table lists work orders with columns: Work Order, Scheduled Date Start, Work Center, Manufacturing Order, Unit of Measure, and Status.

Work Order	Scheduled Date Start	Work Center	Manufacturing Order	Unit of Measure	Status
<input type="checkbox"/> Assemble components	03/15/2017 10:50:57	Components collect	MO/00016	Unit	Ready
<input type="checkbox"/> Assembling	03/15/2017 10:51:09	Assembling	MO/00016	Unit	Pending

In the Work Order form, you can see the status on the top right corner, and register actions on it. Click [Start working] to process the WO.



The screenshot shows the Odoo Work Order form for 'Assembling'. The breadcrumb trail is 'Manufacturing Orders / MO/00016 / Work Orders / Assembling'. There is an 'EDIT' button and an 'Attachment(s)' dropdown. A red box highlights the action buttons: 'START WORKING' (green), 'SCRAP' (blue), and 'QUALITY ALERT' (blue). On the right, a status bar shows 'PENDING' (yellow), 'READY' (yellow), 'IN PROGRESS' (yellow), and 'FINISHED' (yellow). The main content area shows 'To Produce Scaffold' with 'Quantity Produced 0.000 / 5.000 Unit' and a red 'Waiting Materials' button. Below this, there are tabs for 'CURRENT PRODUCTION', 'TIME TRACKING', and 'MISCELLANEOUS'. The 'CURRENT PRODUCTION' tab is active, showing 'Current Qty 5.000'.

# odoo Process manufacturing orders (2)

Once you have started the WO, click [Done] to record the end of production for this WO. Click [Pause] to suspend tracking production time.

The screenshot shows the Odoo Manufacturing Order (WO) interface for 'Scaffold'. The breadcrumb trail at the top reads 'Manufacturing Orders / MO/00016 / Work Orders / Assembling'. Below this, there is a row of action buttons: 'EDIT' (green), 'DONE' (green), 'PAUSE' (orange), 'BLOCK' (red), 'SCRAP' (blue), and 'QUALITY ALERT' (blue). The 'DONE' button is highlighted with a red box and a mouse cursor. To the right of these buttons is a status bar with 'PENDING', 'READY', 'IN PROGRESS', and 'FINISHED' stages, with 'IN PROGRESS' being the active stage. The main content area displays 'To Produce Scaffold' and 'Quantity Produced 0.000 / 5.000 Unit'. A red 'Waiting Materials' button is visible next to the quantity. Below this, there are tabs for 'CURRENT PRODUCTION', 'TIME TRACKING', and 'MISCELLANEOUS'. The 'CURRENT PRODUCTION' tab is active, showing a yellow box for 'Current Qty' with the value '5.000'.

The field 'Current Qty' is set with the quantity to produce when opening the WO. When you click [Done], the quantity in 'Current Qty' is set to 0.00 and the field 'Quantity produced' is updated with the quantity initially required for the WO.

# odoo Run your manufacturing order

Go back to your WO list linked to your MO, clicking on 'Work Orders' in the path link. Edit the second WO and process it.



When you are done with the second WO, go back to the WO list view, and see that all WO status are "finished".

Work Order	Scheduled Date Start	Work Center	Manufacturing Order	Product	Original Production Quantity	Unit of Measure	Status
<input type="checkbox"/> Assemble components	03/15/2017 11:38:35	Components collect	MO/00017	Scaffold	3.000	Unit	Finished
<input type="checkbox"/> Assembling	03/15/2017 11:38:41	Assembling	MO/00017	Scaffold	3.000	Unit	Finished

When you are done with the second WO, go back to the MO form. See that the smart button [Work orders] is updated. You can click [Mark as done] to end your MO.

**Repeat this for the second remaining Manufacturing orders from your MO list view.**

Manufacturing Orders / MO/00017

EDIT CREATE Print Attachment(s) Action 2 / 2

MARK AS DONE CHECK AVAILABILITY POST INVENTORY SCRAP QUALITY ALERT

CONFIRMED IN PROGRESS DONE

2 / 2 Work Orders Inventory Moves

MO/00017

Product Scaffold  
Quantity To Produce 3.000 Unit Update  
Bill of Material Scaffold  
Routing Default production route

Deadline Start 03/15/2017 11:38:19  
Planned Date 03/15/2017 11:38:35 to 03/15/2017 11:38:59  
Responsible jezequelbreard@gmail.com  
Source  
Company edu-TEST-INVENTORY

CONSUMED MATERIALS	FINISHED PRODUCTS	MISCELLANEOUS			
Product	Unit of Measure	Quantity Available	To Consume	Consumed	
Structure bar for scaffold	Unit		0.000	12.000	12.000
Pad for scaffold	Roll		0.000	3.000	3.000

The background of the image is a dark, textured brick wall. The bricks are arranged in a standard running bond pattern, with visible mortar lines. The overall tone is dark and moody.

odoo  
*Quality control*



# Quality Assurance

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- In process quality checking in manufacturing
- Validation of facilities, equipment, process, products and cleaning
- Storage of quality records and control samples (sampling)

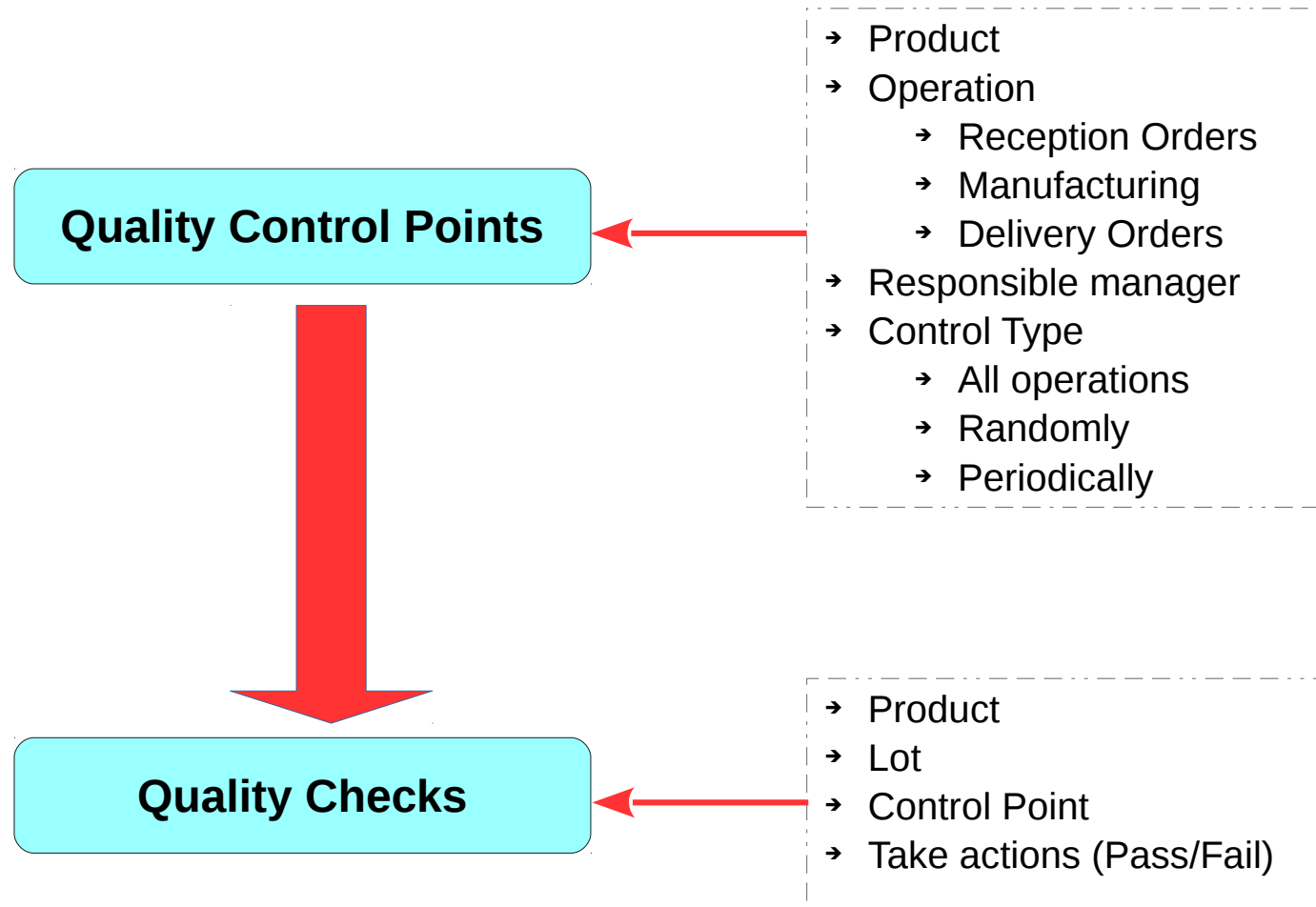
## Tools & Techniques

- Statistical Analysis
- Testing
- Verifying
- Validation Procedures to ensure that work is done right the first time



# Quality Assurance

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# odoo Quality Control Points

The screenshot displays the Odoo Quality Control Points interface. The top navigation bar includes 'Quality', 'Dashboard', 'Quality Control', 'Reporting', and 'Configuration'. The left sidebar shows 'Quality Control Points / QCP' with buttons for 'EDIT' and 'CREATE'. A dropdown menu is open, highlighting 'Control Points' (which is circled in red), along with 'Quality Checks', 'Alerts', and 'Quality Alerts'. The main content area shows a form for 'QCP00001'. The form includes fields for 'Title' (Final Product), 'Product' (Intervinyl#1), 'Product Variant' (Intervinyl#1 (White)), 'Operation' (WH Canadian Colors: Manufacturing), 'Workcenter', and 'Company' (canadian colors inc). It also has fields for 'Control Type' (Randomly), 'Control Frequency' (Every 30.00 % of the operation), 'Test Type' (Pass - Fail), 'Team' (Main Quality Team), and 'Responsible'. A 'NOTES' section at the bottom contains the text 'Quality Control For Final Products By Manufacturing Department'. The top right corner shows the user 'ictformation@savoirfairelinux.com' and the page number '1/1'.

Field	Value
Title	Final Product
Product	Intervinyl#1
Product Variant	Intervinyl#1 (White)
Operation	WH Canadian Colors: Manufacturing
Workcenter	
Company	canadian colors inc
Control Type	Randomly
Control Frequency	Every 30.00 % of the operation
Test Type	Pass - Fail
Team	Main Quality Team
Responsible	

NOTES REASON

Quality Control For Final Products By Manufacturing Department

# odoo Quality Checks

Quality

Dashboard

Quality Control

Reporting

Configuration

Quality Checks / New

SAVE DISCARD

PASS FAIL

Quality Controls

Control Points

Quality Checks

Alerts

Quality Alerts

TO DO

PASSED

FAILED

Product

Intervinyl#1 (White)

Operation

WH/OUT/00002

Control Point

QCP00001

Team

Main Quality Team

NOTES

Quality Control For Final Products By Manufacturing Department

The background of the image is a dark, textured brick wall. The bricks are arranged in a standard running bond pattern, with visible mortar lines. The overall color is a dark charcoal or black, with some lighter grey tones in the mortar joints.

# odoo

## *Maintenance*

# Manage Maintenance process

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- Asset Maintenance, Repair and Operation
- Preventive and Corrective Maintenance Management
- Request Service/Maintenance Management
- Maintenance Work Orders Management
- Parts Management
- Tasks Management



# odoo Maintenance Requests

Pipeline to manage maintenance requests:

Maintenance

DashboardMaintenanceEquipmentsReportingConfiguration

Maintenance Requests

Search...

CREATE

New Request

+

Some keys are not working  
Pieter Parker  
Acer Laptop/LP/203/19281928  
Computers

☆

☆

☆

☆

In Progress

+

Touchpad not working  
Pieter Parker  
HP Laptop/LP/305/17281718  
Computers

☆

☆

☆

☆

Battery drains fast  
Pieter Parker  
HP Laptop/LP/303/28292090  
Computers

☆

☆

☆

☆

Repaired

+

Resolution is bad  
Pieter Parker  
Samsung Monitor 15"/MT/127/18291018  
Monitors

☆

☆

☆

☆

Scrap

+

Motherboard failed  
Pieter Parker  
Acer Laptop/LP/205/12928291  
Computers

☆

☆

☆

☆

>

ADD NEW COLUMN

# odoo Registration of equipment and tools

This module allows recording not only equipment, machines, and tools, but also work centers which will be object to the repair.

The screenshot displays the Odoo Maintenance module interface for creating a new equipment record. The top navigation bar includes 'Maintenance', 'Dashboard', 'Maintenance', 'Equipments', 'Reporting', and 'Configuration'. The user is logged in as 'Administrator' from 'YourCompany'. The 'Equipments / New' page has a 'SAVE' button and a 'DISCARD' button. A red box highlights the 'Work Centers' tab, which is currently selected, with 'Machines & Tools' as an alternative option. The form fields are as follows:

- Equipment Name:** Hammer drill
- Equipment Category:** (Dropdown menu)
- Used By:** Radio buttons for Department, Employee (selected), and Other.
- Employee:** (Dropdown menu)
- Maintenance Team:** (Dropdown menu)
- Technician:** (Dropdown menu)
- Used in location:** (Dropdown menu)
- Work Center:** (Dropdown menu)

At the bottom, there is a tab bar with three tabs: 'DESCRIPTION' (active), 'PRODUCT INFORMATION', and 'MAINTENANCE'.

# Contributions

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Le présent document a été rédigé et émis par l'équipe de consultants fonctionnels Odoo ERP de Savoir-Faire Linux :

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- Mickaël Brard
- Marc Lijour
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Vous pouvez récupérer les documents de formation, les utiliser et modifier (dans les limites des conditions prévues par la licence CC-BY-NC-SA), depuis l'url suivante :

<https://github.com/savoirfairelinux/training-odoo>



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*Solutions de gestion informatique*