

Namal University, Mianwali

Department of Electrical Engineering

EE-254- Engineering Drawing

Lab-11 Electrical wiring and House map using AutoCAD 2016

Student Name	Institute ID	Marks
Fahim Ur Rehman Shah	NIM-BSEE-2021-24	

~			
Date:			
Daig.			

Instructor: Engr. Rizwan Shabbir

Document History

Rev	. Date	Comment	Author
1.0	02-2022	Initial Draft	MB
1.1	06-2023	Revision	RS

Course Learning Outcomes

CLO1: Describe and report basic engineering drawing problems.

CLO3: Reproduce 2-D and 3-D sketches using AutoCAD by applying engineering drawing principles.

Equipment

- Software
 - o AutoCAD 2016 Educational Version

Instructions

The following instructions are to be followed while performing the labs:

- The manual must be thoroughly read before starting the lab.
- The theoretical concepts related to the lab and experiments must be revised.
- All attempts shall be made to complete the lab during the lab session.
- Any attempt to plagiarize from any source will be reported to the disciplinary committee for further action so keep the work original.
- Carefully use the laboratory equipment.

Objectives

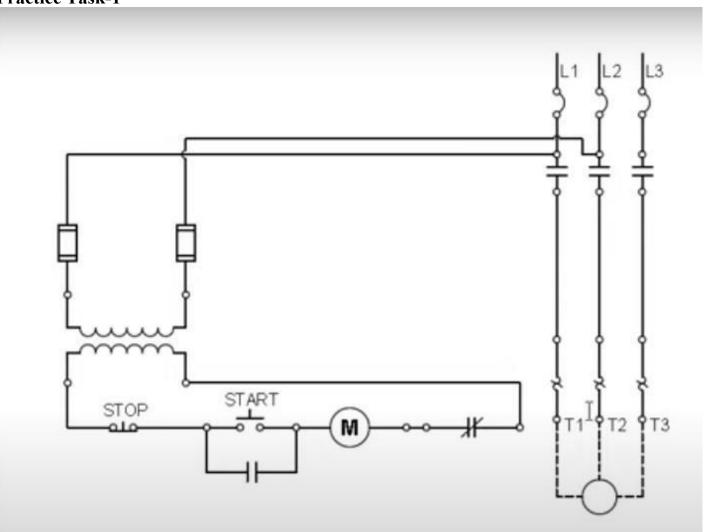
• To get hands on experience of electrical wiring diagrams and house map in AutoCAD software.

Background Information

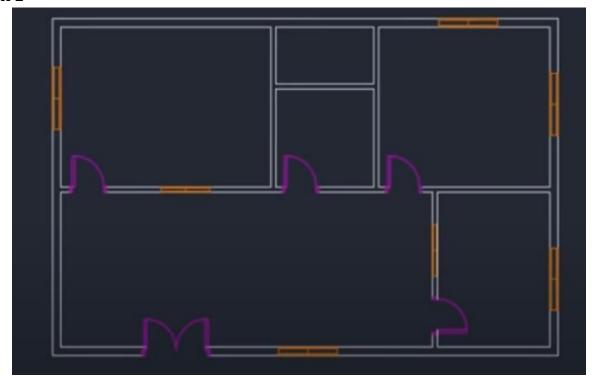
Electrical drawings, sometimes referred to as wiring diagrams, are a type of technical drawing that provide visual representation describing electrical systems or circuits. They are used to explain the design to electricians or other workers who will use them to help install or repair electrical systems.

Now a days, the buildings' structure ranges from simple to very complex. A proper architect diagram is necessary for its construction. That architect diagram contains proper design and information about structure and wiring of electricity, sanitation etc. These wiring layouts are necessary to plan and design according to set global standards before building construction. Because it can't be changed after construction.

Practice Task-1

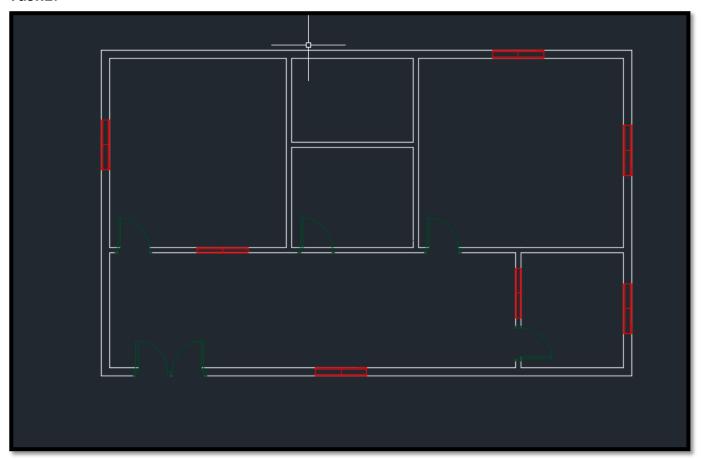


Task 2





Task1:



Commands:

Specify second point or [Array/Exit/Undo] <Exit>: *Cancel* Command: Command: _.erase 1 found Command: Command: Command: Command: _move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Command: Command: Command: copy 1 found Current settings: Copy mode = Multiple Specify base point or [Displacement/mOde] < Displacement>: Specify second point or [Array] <use first point as displacement>: Specify second point or [Array/Exit/Undo] <Exit>: *Cancel* Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Window Lasso Press Spacebar to cycle options Crossing Lasso Press Spacebar to cycle options Crossing Lasso Press Spacebar to cycle options Command: _.erase 1 found

Command: Command: Command: Command: copy 1 found Current settings: Copy mode = Multiple Specify base point or [Displacement/mOde] < Displacement>: Specify second point or [Array] < use first point as displacement>: Specify second point or [Array/Exit/Undo] <Exit>: *Cancel* Command: Command: Command: arc Specify start point of arc or [Center]: Specify second point of arc or [Center/End]: *Cancel* Command: <Ortho off> Command: Command: Command: arc Specify start point of arc or [Center]: Specify second point of arc or [Center/End]: Specify end point of arc: Command: ARC Specify start point of arc or [Center]: *Cancel* Command: Command: Command: Command: move 1 found Specify base point or [Displacement] < Displacement>: < Ortho on> Specify second point or <use first point as displacement>: Command: *Cancel* Window Lasso Press Spacebar to cycle options Window Lasso Press Spacebar to cycle options Crossing Lasso Press Spacebar to cycle options Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Command: Command: Command: _copyclip 5 found Command: Command: Command: pasteclip Specify insertion point: Press ESC or ENTER to exit, or right-click to display shortcut menu. Command: Command: Command: _pasteclip Specify insertion point: Command: Command: Command: pasteclip Specify insertion point: Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Crossing Lasso Press Spacebar to cycle options Command: Command: Command: mirror 5 found Specify first point of mirror line: Specify second point of mirror line: Erase source objects? [Yes/No] <No>: N

Command: _u INTELLIZOOM Command: _u MIRROR GROUP

Crossing Lasso Press Spacebar to cycle options

Command:

Command: _mirror 5 found Specify first point of mirror line: Specify second point of mirror line:

Erase source objects? [Yes/No] <No>: *Cancel* Crossing Lasso Press Spacebar to cycle options Crossing Lasso Press Spacebar to cycle options

Command: Command:

Command: _mirror 5 found Specify first point of mirror line: Specify second point of mirror line: Erase source objects? [Yes/No] <No>: N

Crossing Lasso Press Spacebar to cycle options

Command: Command:

Command: copyclip 10 found

Command: Command:

Command: _pasteclip Specify insertion point:

>>Press ESC or ENTER to exit, or right-click to display shortcut menu.

Resuming PASTECLIP command.

Specify insertion point:

Window Lasso Press Spacebar to cycle options Window Lasso Press Spacebar to cycle options Crossing Lasso Press Spacebar to cycle options

Command: _.erase 4 found

Window Lasso Press Spacebar to cycle options

Command: Command:

Command: _mirror 5 found Specify first point of mirror line:

Specify second point of mirror line: *Cancel*

Command:

Press ESC or ENTER to exit, or right-click to display shortcut menu.

Command:

Press ESC or ENTER to exit, or right-click to display shortcut menu.

Command: Command:

Command: _qnew

Command: Command: Command: Command: _qsave

Window Lasso Press Spacebar to cycle options

Command: Command: _rotate

Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0

5 found

Specify base point:

Specify rotation angle or [Copy/Reference] <90>:

Command: Window Lasso Press Spacebar to cycle options Command: Command: Command: _rotate Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0 5 found Specify base point: Specify rotation angle or [Copy/Reference] <270>: Window Lasso Press Spacebar to cycle options Command: Command: Command: copyclip 5 found Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Command: *Cancel* Command: Press ESC or ENTER to exit, or right-click to display shortcut menu. Command: Command: Command: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: *Cancel* Command: _u MOVE GROUP Command: Command: Command: Command: _move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Crossing Lasso Press Spacebar to cycle options Command: Command: Command: _copyclip 6 found Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Command: Command: Command: _pasteclip Specify insertion point: Window Lasso Press Spacebar to cycle options Command: Command: Command: rotate Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0 3 found Specify base point: Specify rotation angle or [Copy/Reference] <0>: u Requires valid numeric angle, second point, or option keyword. Specify rotation angle or [Copy/Reference] <0>: *Cancel* Command: _u ROTATE GROUP Command: u PASTECLIP GROUP Window Lasso Press Spacebar to cycle options

Command: Command:

Command: _rotate

Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0

4 found

Specify base point:

Specify rotation angle or [Copy/Reference] <0>: Crossing Lasso Press Spacebar to cycle options

Command: Command:

Command: _rotate

Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0

4 found

Specify base point:

Specify rotation angle or [Copy/Reference] <180>: Window Lasso Press Spacebar to cycle options

Command: Command:

Command: mirror 4 found Specify first point of mirror line: Specify second point of mirror line:

Erase source objects? [Yes/No] <No>:

Command:

Command: .erase 1 found

Command:

Command: Specify opposite corner or [Fence/WPolygon/CPolygon]:

Command: .erase 1 found

Command:

Command: _.erase 1 found

Command:

Command: _.erase 1 found

Window Lasso Press Spacebar to cycle options

Command: Command:

Command: _copyclip 6 found

Command: Specify opposite corner or [Fence/WPolygon/CPolygon]:

Command: *Cancel*

Command: Command:

Command: _pasteclip Specify insertion point: Window Lasso Press Spacebar to cycle options

Command: .erase 5 found

Crossing Lasso Press Spacebar to cycle options

Command: .erase 4 found

Command: Command: Command: _qsave

Command: Command:

Command: gsave

Crossing Lasso Press Spacebar to cycle options

Command:

Press ESC or ENTER to exit, or right-click to display shortcut menu.

Command: <Grid off>

Command: Command: trim

Current settings: Projection=UCS, Edge=None

Select cutting edges ... 7 found

Select object to trim or shift-select to extend or [Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]: *Cancel*

Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: *Cancel*

Command: trim

Current settings: Projection=UCS, Edge=None

Select cutting edges ... 3 found

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]: Specify opposite corner: Specify opposite corner: *Cancel*

Crossing Lasso Press Spacebar to cycle options

Command: _u TRIM GROUP

Command: trim

Current settings: Projection=UCS, Edge=None

Select cutting edges ... 4 found

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]: *Cancel*

Command:

Command: _trim

Current settings: Projection=UCS, Edge=None

Select cutting edges ... 12 found

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

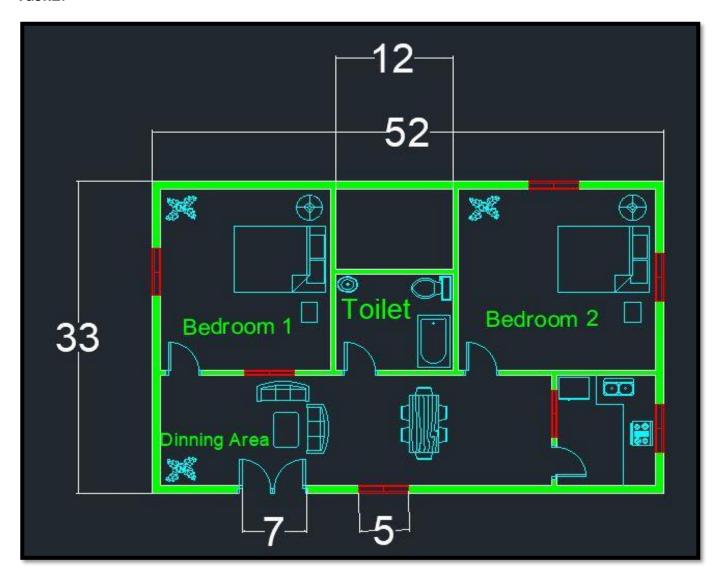
[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]: *Cancel*

Command:

Task2:



Commands:

Command:

Command: _move 1 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command:

Command: move 3 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: _u MOVE GROUP

Command:

Command: _copy 3 found

Current settings: Copy mode = Multiple

Specify base point or [Displacement/mOde] < Displacement>:

Specify second point or [Array] <use first point as displacement>:

Specify second point or [Array/Exit/Undo] <Exit>:

Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: rotate Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0 1 found Specify base point: Specify rotation angle or [Copy/Reference] <270>: Command: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: Command: .erase 1 found Command: ADCENTER Command: Automatic save to C:\Users\bsee202124\appdata\local\temp\Lab11_1_1_4126.sv\$... Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: Command: Command: Command: _move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: _move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: '_dimstyle Command: dim Select objects or specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:' .-LAYER Current layer: "doorss" >>Enter an option [?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/ Unlock/stAte/Description/rEconcile]: OFF >>Enter name list of layer(s) to turn off or <select objects>: =walls

>>Enter an option

[?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/Unlock/stAte/Description/rEconcile]:

Resuming DIM command.

Cancel

Command:

Command: dim

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:_u

Specify second extension line origin or [Undo]:*Cancel*

Command: '_dimstyle

Command: _trim

Current settings: Projection=UCS, Edge=None

Select cutting edges ... 4 found

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]:

Select object to trim or shift-select to extend or

[Fence/Crossing/Project/Edge/eRase/Undo]: *Cancel*

Command:

Press ESC or ENTER to exit, or right-click to display shortcut menu.

Command:

Command: '_.-LAYER
Current layer: "doorss"

Enter an option

[?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/

Unlock/stAte/Description/rEconcile]: _ON

Enter name list of layer(s) to turn on: =walls Enter an option

Unlock/stAte/Description/rEconcile]:

Command:

Command: _move 2 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>: _u

Invalid point.

Specify second point or <use first point as displacement>: *Cancel*

Command: _move 1 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: move 1 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: _rotate

Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0

1 found

Specify base point: Specify rotation angle or [Copy/Reference] <180>: Command: _move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: _move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: copy 1 found Current settings: Copy mode = Multiple Specify base point or [Displacement/mOde] < Displacement>: Checking 1128 intersections... Specify second point or [Array] < use first point as displacement>: Specify second point or [Array/Exit/Undo] <Exit>: Command: Crossing Lasso Press Spacebar to cycle options Command: _.erase 5 found Window Lasso Press Spacebar to cycle options Window Lasso Press Spacebar to cycle options Command: .erase 7 found Command: Press ESC or ENTER to exit, or right-click to display shortcut menu. Command: Specify opposite corner or [Fence/WPolygon/CPolygon]: Command: _move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Automatic save to C:\Users\bsee202134\appdata\local\temp\Lab11 1 4126.sv\$... Command: line Specify first point: Command: '_.-LAYER Current layer: "Doors" >>Enter an option [?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/ Unlock/stAte/Description/rEconcile]: OFF >>Enter name list of layer(s) to turn off or <select objects>: =walls >>Enter an option [?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/ Unlock/stAte/Description/rEconcile]:

Command: *Cancel*

Command: line

Specify first point: Specify next point or [Undo]: <Ortho on> Specify next point or [Undo]: Specify next point or [Close/Undo]: >>Press ESC or ENTER to exit, or right-click to display shortcut menu. Resuming LINE command. Specify next point or [Close/Undo]: Command: line Specify first point: Specify next point or [Undo]: >>Press ESC or ENTER to exit, or right-click to display shortcut menu. Resuming LINE command. Specify next point or [Undo]: Specify next point or [Undo]: *Cancel* Command: Press ESC or ENTER to exit, or right-click to display shortcut menu. Command: _line Specify first point: Specify next point or [Undo]: Specify next point or [Undo]: Specify next point or [Close/Undo]: Specify next point or [Close/Undo]: Command: Command: '_.-LAYER Current layer: "Doors" Enter an option [?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/ Unlock/stAte/Description/rEconcile]: _ON Enter name list of layer(s) to turn on: =walls Enter an option [?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/ Unlock/stAte/Description/rEconcile]: Command: '_dimstyle Command: Command: Command: dim Select objects or specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]: Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]: Specify second extension line origin or [Undo]: Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]: u Specify second extension line origin or [Undo]:*Cancel* Command: Command: Command: mtext Current text style: "Standard" Text height: 1/4" Annotative: No Specify first corner: ' style Resuming MTEXT command. Specify first corner: *Cancel* Command:

Command: mtext

Current text style: "Standard" Text height: 1/4" Annotative: No

Specify first corner:

Specify opposite corner or [Height/Justify/Line spacing/Rotation/Style/Width/Columns]:

Command:

Command: mtext

Current text style: "Standard" Text height: 1/4" Annotative: No

Specify first corner:

Specify opposite corner or [Height/Justify/Line spacing/Rotation/Style/Width/Columns]:

Command: Command:

Command: _scale 1 found

Specify base point:

Specify scale factor or [Copy/Reference]:

Command:

Command: Specify opposite corner or [Fence/WPolygon/CPolygon]:

Command:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:*Cancel*

Automatic save to C:\Users\bsee202124\appdata\local\temp\Lab11_1_1_9874.sv\$...

Command: dim

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]:

Specify how to handle overlapping dimensions [Move away/Break up/Replace/None] < Move away>:*Cancel*

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Command:

Command: '_.-LAYER
Current layer: "doorss"

Enter an option

[?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/

Unlock/stAte/Description/rEconcile]: _ON Enter name list of layer(s) to turn on: =walls

Enter an option

[?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/Unlock/stAte/Description/rEconcile]:

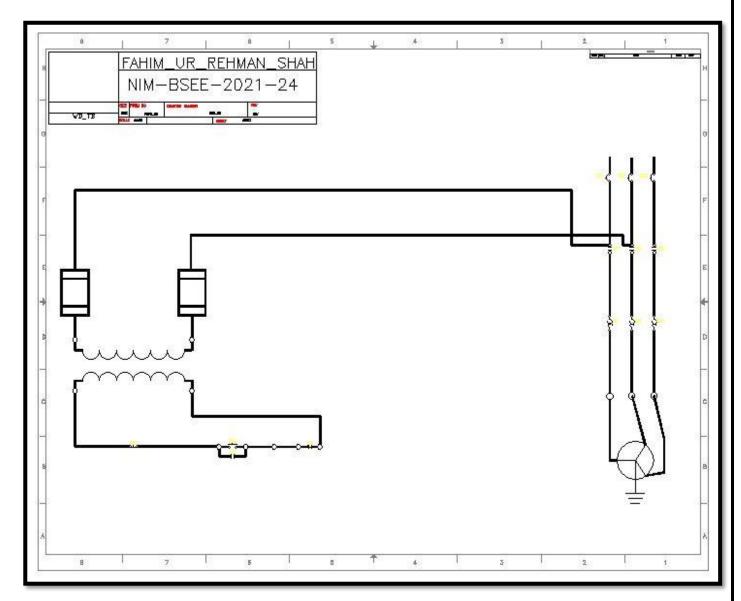
Command: *Cancel*

Command:

Automatic save to C:\Users\bsee202124\appdata\local\temp\Lab11_1_1_9874.sv\$...

Command:

Practice Task:



Commands:

Command:

Command: _move 1 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: _move 3 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: _u MOVE GROUP

Command: _copy 3 found

Current settings: Copy mode = Multiple

Specify base point or [Displacement/mOde] < Displacement>:

Specify second point or [Array] < use first point as displacement>:

Specify second point or [Array/Exit/Undo] <Exit>:

Command: move 1 found

Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: Command: _move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: rotate Current positive angle in UCS: ANGDIR=counterclockwise ANGBASE=0 1 found Specify base point: Specify rotation angle or [Copy/Reference] <270>: Command: move 1 found Specify base point or [Displacement] < Displacement>: Specify second point or <use first point as displacement>: Command: Command: .erase 1 found Command: ADCENTER Automatic save to C:\Users\bsee202124\appdata\local\temp\Lab11 1 1 4126.sv\$... Command: move 1 found Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command:

Command: move 1 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: move 1 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: move 1 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: move 1 found

Specify base point or [Displacement] < Displacement>:

Specify second point or <use first point as displacement>:

Command: '_dimstyle

Command: dim

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:'_.-LAYER

>>Enter an option

[?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/ Unlock/stAte/Description/rEconcile]: OFF

>>Enter name list of layer(s) to turn off or <select objects>: =walls

>>Enter an option

[?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/ Unlock/stAte/Description/rEconcile]:

Resuming DIM command.

Cancel

Command:

Command: _dim

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify first extension line origin or [Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Specify second extension line origin or [Undo]:

Specify dimension line location or second line for angle [Mtext/Text/text aNgle/Undo]: u

Specify second extension line origin or [Undo]:*Cancel*

Command: '_dimstyle

Command:

Select objects or specify first extension line origin or

[Angular/Baseline/Continue/Ordinate/aliGn/Distribute/Layer/Undo]:

Command:

Enter an option

[?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/

 $Unlock/stAte/Description/rEconcile]: _ON$

Enter name list of layer(s) to turn on: =walls

Enter an option

[?/Make/Set/New/Rename/ON/OFF/Color/Ltype/LWeight/TRansparency/MATerial/Plot/Freeze/Thaw/LOck/

Unlock/stAte/Description/rEconcile]:

Command: *Cancel*

Command:

Automatic save to C:\Users\bsee202124\appdata\local\temp\Lab11 1 1 9874.sv\$...

Command:

Engineering Drawing Lab 11

Method of Evaluation: Lab Report and in-lab marking by instructors.

Measured Learning Outcomes

CLO1: Describe and report basic engineering drawing problems.

CLO3: Reproduce 2-D and 3-D sketches using AutoCAD by applying engineering drawing principles.

Assignment answer (CLO1) propunction	quired document filled- neatly with meaningful swers to all questions, proper grammar and	Required document filled-in neatly with meaningful answers to most questions	Some correct/meaningful answers and conclusions with some irrelevant ones.	Answers not understandable/ not relevant to questions.	Report/Hand	
	nctuations with proper conclusion drawn	and proper conclusions drawn with some grammar mistakes	Some parts of the document not neat or some grammar mistakes.	Conclusions not based on results. Illegible writing with no proper grammar/punctuation	out Not submitted	
Completion compl	All Tasks were mpletedsuccessfully in the time ofthe lab	Most of the tasks were completed in the given time of the lab	Some of the tasks were completed in the given lab time	Very few tasks were performed and completed in given lab time	Lab tasks weren't performed at all	