

Test Project

Information Network Cabling

Module 1

Optical fibre cabling system

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Introduction

This Test Project consists of the following documents/files, which are provided as digital files:

- Fig.M1_1_Overview.pdf :
- Fig.M1_2_Cable root.pdf:
- Fig.M1_3_Install position.pdf:
- Fig.M1_4_Connection diagram 1.pdf: Tablet
- Fig.M1_5_ Connection diagram 2.pdf: Tablet
- Fig.M1_6_ Connection diagram 3.pdf: Tablet
- Doc.M1_1_Construction plan and completion report.xls : PC
- Doc.M1_2_Quality plan and management result report.xls : PC

Description of project and tasks

Module 1 assumes that an optical fiber cabling system is to be constructed to in the sufficiently spacious premises as shown in Figure.1.

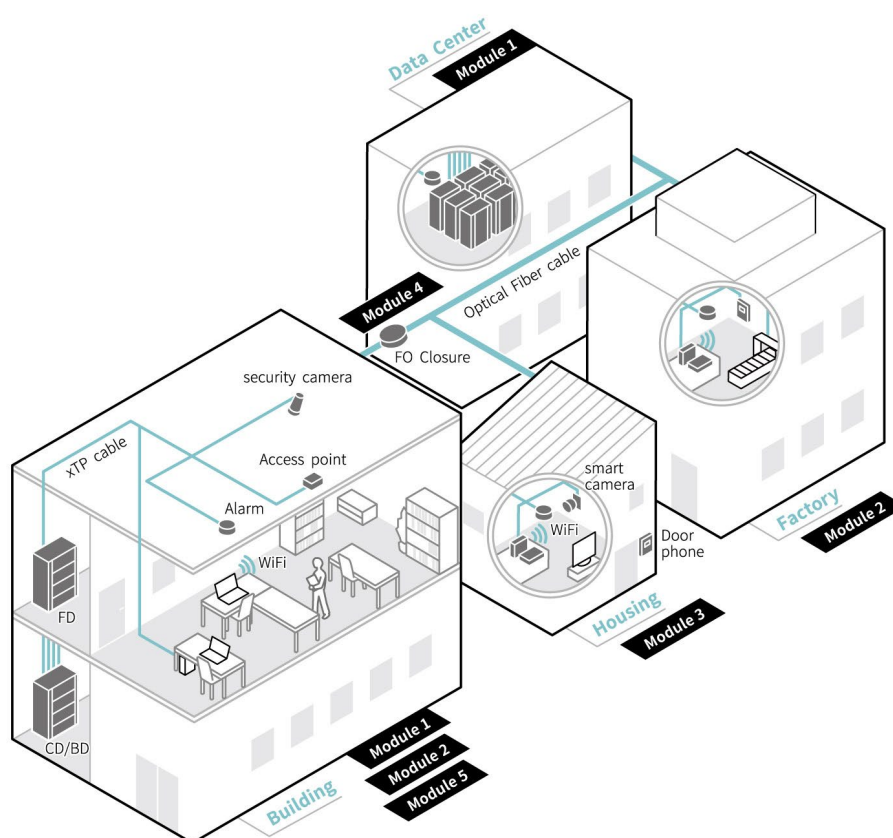


Figure 1. Scope of module 1.

Instructions to the Competitor

The competition time is 7 hours 30 minutes in total. Work must be done in 2 days in total. 2 hours 30 minutes for the first day and 5 hours for the second day are allocated. The first one hour on the second day must be spent strictly for the prescribed work

The schematic drawing of module 1 is as presented in Figure 2. Complete the Module based on the Construction Standard Specification for Module Implementation and the cable connection diagram.

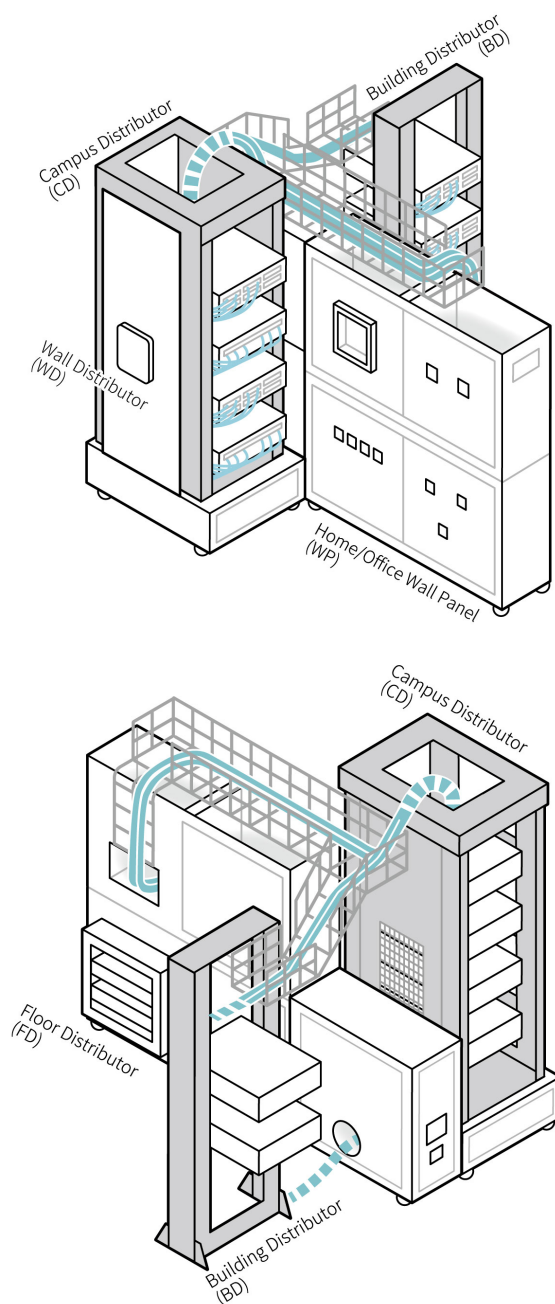


Figure 2. Schematic drawing of module 1.

[1]. Module 1 preparation

- The 4 12C ribbon fibers pre-installed to the optical enclosure (2RU Fanout PreTermPanel) and the 4 12C ribbon fibers of the Indoor Plenum Ribbon Cable (SE-8RU0192-B) must be fusion spliced using the fusion splicer (FT-9288XRLX2U-SE-SA)
- This work is terminated in 60 minutes

[2]. Task Sequence

The following sequence must strictly be followed:

1. Patch cord management must be done by connecting Duplex FO Patch Cord LC, SM to the optical enclosure. In management, esthetic aspect must be prioritized rather than maintainability. Once this task is done, the Competitor can move on to the next task, but you can't go back.
2. The followings must be made:
3. [Construction plan] Doc.M1_1.xls for PC

- Make a construction plan. A work procedure can be selected from the list. Cautious points for the work must be described. You can describe in your own language.

[Connection Diagram] Fig.M1_4~6.pdf for Tablet

- Necessary items must be described in the Connection Diagram and Fig.M1_4~Fig.M1_6, referring to the Fig.M1_1_Overview.
- The scope for description is the oval part indicated in Fig.M1_1_Overviews.
- As the Diagram is also a Construction Plan, description must be limited to the part that you can construct within the competition time. The plan must be carefully made considering that everyone must tidy up, clean, and push the completion button at the end of competition.

[Quality plan] Doc.M1_2.xls

- Link(s) and port(s) to measure must be described. Name of the file to store the DSX Test result must also be described
- Calculate the Loss budge of the measured link(s)

Formula for Loss budge calculation is as follows. This formula is pre-input in the loss budge cell.

Fusion splice : 0.3dB/pc、 Mechanical Splice:0.5dB/pc

Connector : 0.75dB/pc Fiber : 0.45dB/km

When such a plan has been prepared, the expert must be notified.

4. Those who completed "2" above can start construction. Submission is not necessary at this point. No specific construction sequence is designated from this point on.
5. The followings must be made and uploaded after finishing construction:

[Connection diagram result] Fig.M1_4~6.pdf

- Any change made on the diagram created in 2 above must be written in red. If there is no change, put a circle (○) "Result" on the left top.
- Each file with ○ must be put in the folder "Diagram" and compressed.

[Quality management result report] Doc.M1_2.xls

- Necessary items must be described.
- The file of DSX certification test result must be put in the folder "DSX results" and compressed.

6. Uploading to the system(<https://skill02worldskills.com/>). Necessary files are as follows:

- Doc.M1_1_Construction plan & completion report.xls
 - Doc.M1_2_Quality plan & management result report.xls
 - Diagram.zip: Fig.M1_4、 Fig.M1_5、 Fig.M1_6 →put in the folder "Diagram" and compress
 - DSX result.zip
7. Check to confirm that the files were uploaded.
 8. Final check for tidying-up and cleaning.
 9. Push the completion button.

Equipment, machinery, installations, and materials required

Materials and equipment not listed in the infrastructure list are not used in this module.

Marking Scheme

Total marking score for Module 1 is "X." "Construction Standard Specification for Module Implementation" is referable for marking criteria.

Other

- Competitors must comply with the matters prescribed in the competition guideline 2022SE.
- A stepladder must be used when wiring to the cable ladder.