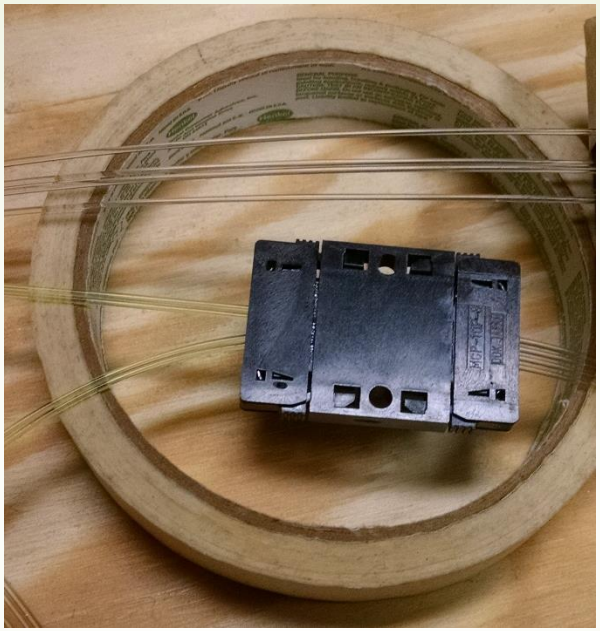
DDK Connectors



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SoLID EC/DAQ Meeting

Modified Procedure from MINERvA

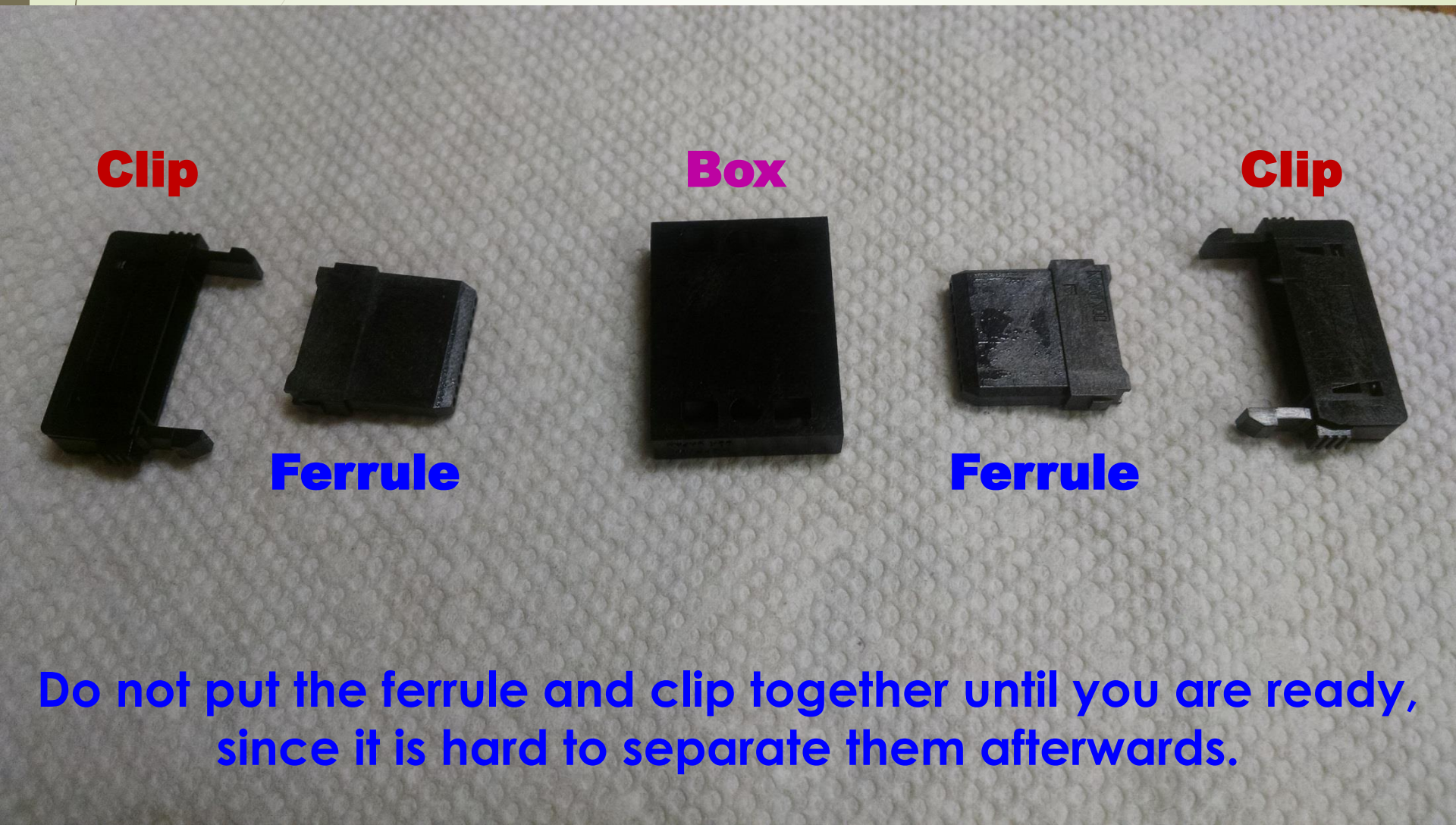
1. Cut fibers to desired length, leave some extra length for cutting and polishing fibers.
2. Insert fibers into a ferrule.
3. Cement fibers into ferrule with BC600.
4. Let cement cure (24 hours).
5. Trim the fibers to about 0.3 cm at the ferrule.
6. Polish the fibers and connector together using sand paper until the fibers are flush with the ferrule on a hard flat surface.
7. Polish the fibers and connector using fine polishing paper until the fiber ends are polished.
8. Snap the clip onto the ferrule and insert into the box component.
9. Repeat the process for the other fiber ends that will be connected to the same box.

Note: steps 6 and 7 are my own procedure, since the MINERvA paper does not explain the details of their polishing procedure.

Useful Links

- **Ferrule and Clip:** MCP-10P-3.pdf
- **Box:** MCP-10A.pdf
- **MINERvA** Detector (Section 3.3, pages 24-26): http://arxiv.org/pdf/1305.5199.pdf

DDK Connector Parts

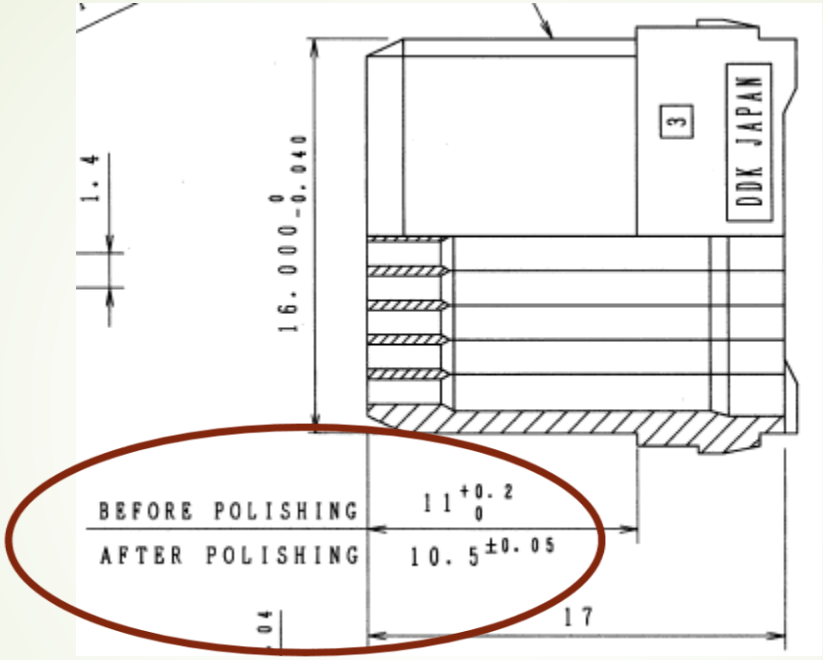


Do not put the ferrule and clip together until you are ready, since it is hard to separate them afterwards.

DDK Ferrule in Box

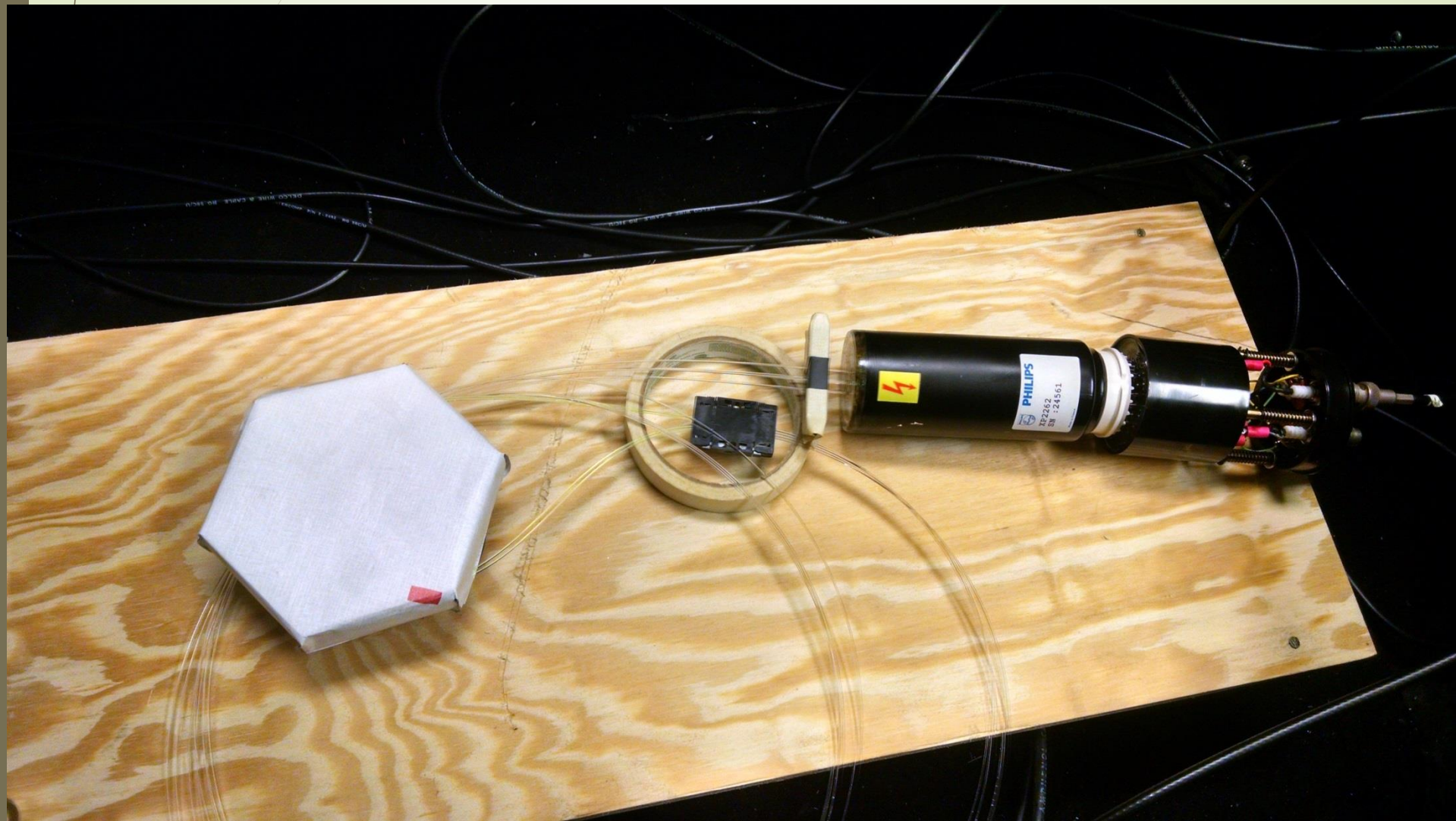
DDK Clips and Ferrule

Instructions from Fujikura

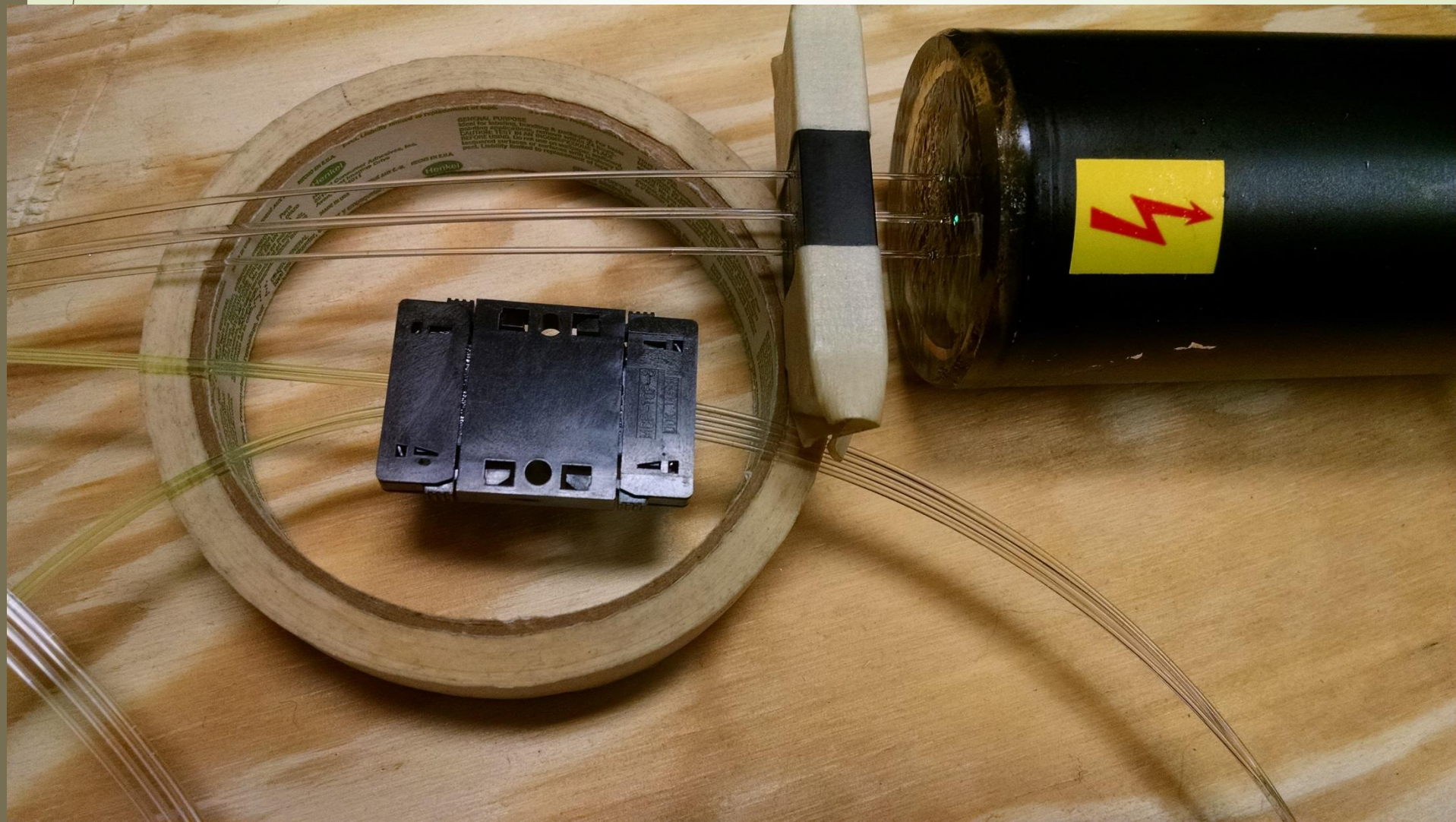


When polishing the fiber and the connector, please shorten the connector length from 11mm to 10.5mm, then, the connectors would fit into the adaptor. Please refer to the figure above.

DDK Connector Assembled



DDK Connector Assembled



Notes

1. Sanding the ferrule by hand may lead to a curved surface. A polishing machine that provides uniform motion across the ferrule surface would be better.
2. If done properly, when the two ferrules are connected to the box, the ferrules and box should be flush with each other without any gaps between the surfaces.