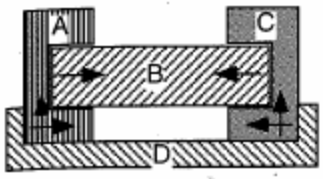
Assembly Sequence Analysis

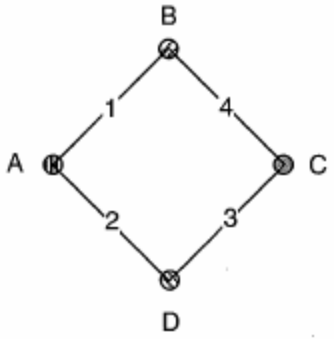
- Liaison diagrams lead to assembly sequence
- Assumptions:
  - parts are rigid
  - liaison stays put once made

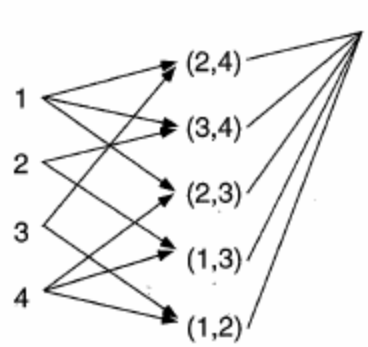
Generating Feasible Sequences

- Make drawing and parts list
- Generate liaison diagram
- Answer precedence questions
  - local constraints on movement
  - global constraints
- Generate precedence relations
- Generate graph of sequences

Example Assembly Sequences

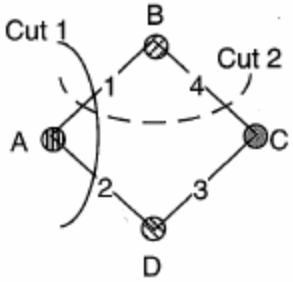


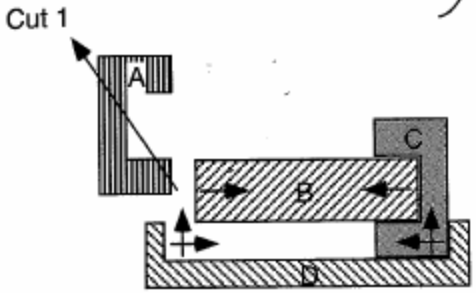


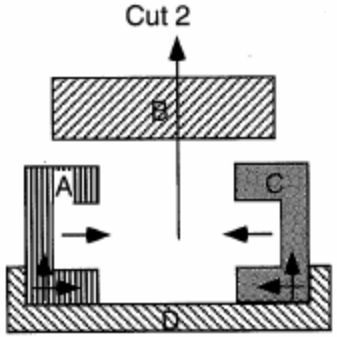


None of these pairs can be first.

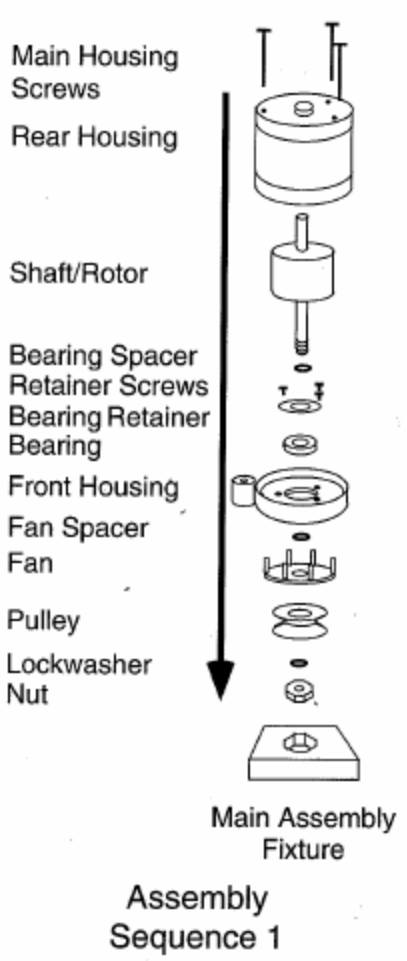
(1,4) does not appear on the right-hand side, so 1 and 4 are unprecedented.
Thus they can be first, in either order.
Then 2 and/or 3 can be next.



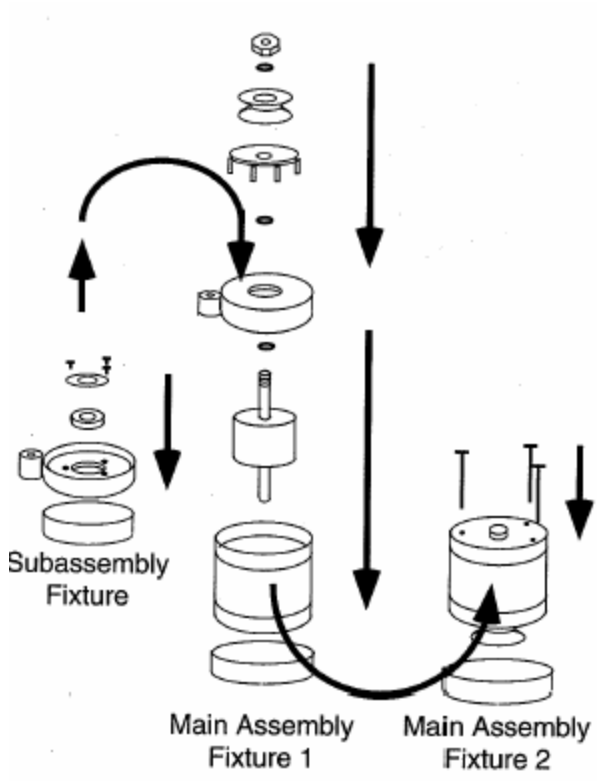




More Example Sequences

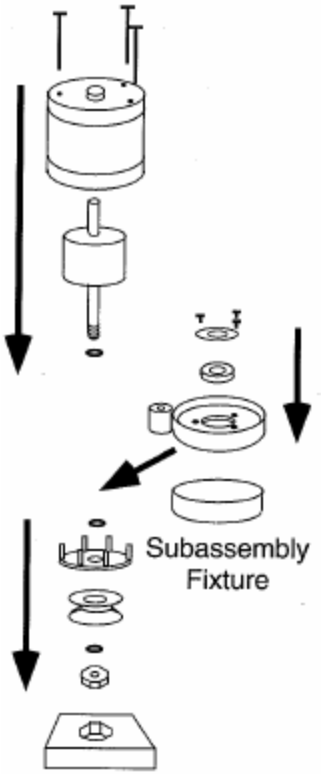


Assembly Sequence 1

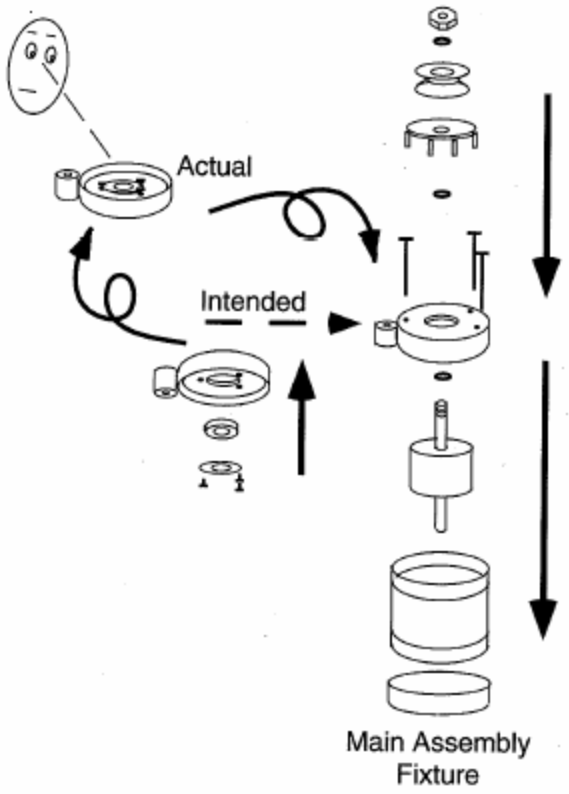


Assembly Sequence 2

More Example Sequences



Assembly
Sequence 3



Assembly
Sequence 4