8. **Tool life Monitoring – Human error Prevention**

   As we used advanced machines like Mazak & others, where we have facility in the machine part program for tool life to be set in nos. as well as we get alarm for the same

But tool change like drill change, milling cutter insert change or corner change is now manual process.

So we don't know whether that tool or insert physical replaced or changed by operator

We need that to be detect in auto form , need solution or method to detect it.

This is the need of projects, in some of the machine we can add thumb sensor by which we can find out who changed this tool but whether it is physical changed or not is we can't find out.