GPS
Generic Prognostic Simulator

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Prognostics

Prognostics is an engineering discipline focused on predicting the time at which a system or a component will no longer perform its intended function.
A generic prognostic simulator is a device that can generate life data of any mechanical component appears to vibrate while working.

Objectives:
- ❑ To simulate the degradation signature of a versatile mechanical components.
- ❑ To fulfil need of the life data of component for prognostics.

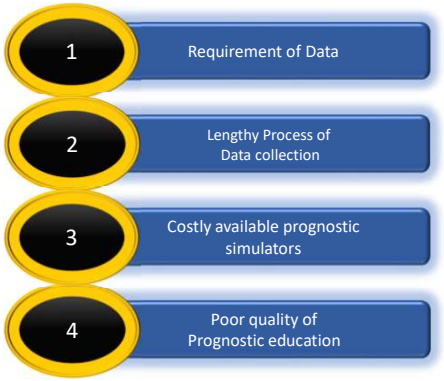
Implementation

To implement Prognostics, required data can be obtained from Prognostic simulator. For that purpose user need to provide some previous Condition monitoring life data to the Black Box(GPS) in specific format.

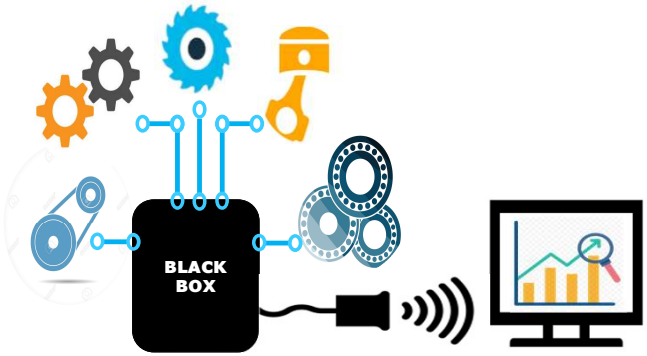
Benefits to the Industry and Education system

- ❑ No need to run machine till failure to get the life data every time.
- ❑ Ease in collection of Prognostic data.
- ❑ Students will get to learn practical knowledge about data collection for prognostics.
- ❑ Collaborative Prognostics.

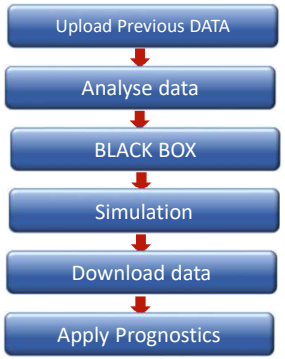
Industrial and Educational challeneges while implementing prognostics



Idea behind the Project

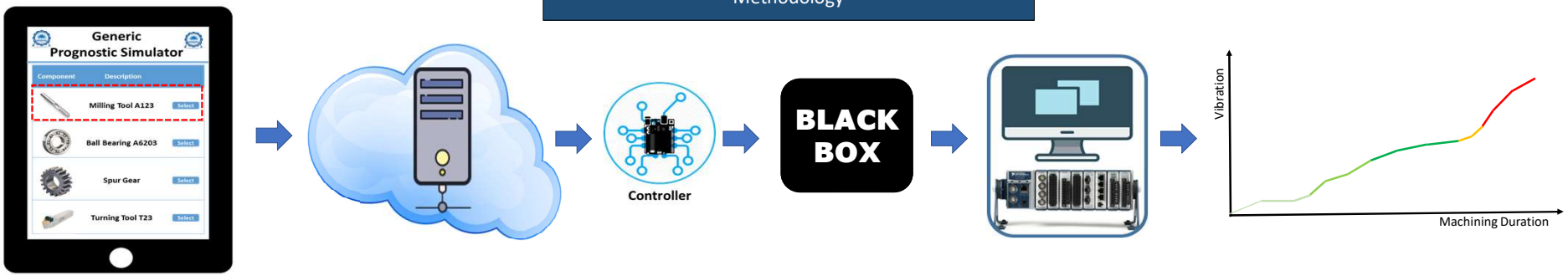


Procedure for Industrial Application



Upload the Condition Monitoring Life data of component user want to simulate in specified format using User Interface.
UI provides following features:
- Trend generation of degradation parameter.
- Provision to download simulated data.
- Life of component(Simulated.)

Methodology



User Interface | Data storage | Data Acquisition | Simulated Degradation Parameter