Maintenance activities can basically be divided into two parts: planned maintenance activities and unplanned maintenance activities.

Planned maintenance is maintenance that is organized and carried out with thought to the future, control and recording in accordance with the plans that have been determined previously.

The type of maintenance cannot be equated for each equipment, which depends on the method, cost and critical level. The following types of maintenance methods are commonly used in several industries.

1. [Preventive Maintenance](https://automationforum.co/preventive-maintenance-basics/)
2. Predictive Maintenance
3. Corrective Maintenance
4. Breakdown Maintenance

**Preventive Maintenance:**

It is a method for preventing damage to equipment by periodically replacing parts based on time of use and carrying out minor maintenance and inspections to find out the current state of the equipment / machinery.

Example: Cleaning, checking, lubricating, bolt tightening Periodic inspection Periodic and small over haul restorations

**Predictive Maintenance:**

Predictive maintenance is a method for doing maintenance by replacing parts based on predictions using a tool. The point is if the preventive method is only based on the schedule, then the predictive method is based on the results of the measurement.

This method can also use the five senses, for example in bearing inspection can be distinguished from the sound produced. Or checking temperature, by touching it we can feel the difference or abnormality of the equipment.

Examples: Tachometer, to measure the rotation of the Thermometer, to measure the temperature of the Ampermeter, to measure amperage

**Corrective Maintenance:**

It is a method intended to improve the reliability of equipment/machines by improvising. In addition to equipment, it is also intended for parts that have a short life cycle (reduce the frequency of damage) and speed up repair time.

In other words, this method is to extend MTBF (Mean Time Between Failure) and accelerate MTTR (Mean Time To Repair) because of its reliability (activity to prevent recurrence of damage) and maintenability (activity to speed up repair time).

Example: The operator has difficulty checking the oil volume of the generator engine, so improvisation is done by making a measuring cup equipped with a scale.

**Breakdown Maintenance**

It is a method where inspection and replacement of parts are not carried out, so with this method we leave the equipment damaged and then we fix it or replace it

Usually this method is applied to equipment / machines with consideration:

* Equipment is only optional (additional) so that if it is damaged it does not interfere with production
* The cost of repairing / replacing cheap parts
* Insignificant damage
* Easy and fast repair

**Total productive maintenance (TPM):**

Total productive maintenanc is a maintenance activity that involves production operators in maintaining equipment / machinery in addition to activities carried out by maintenance operators.

Examples are cleaning, lubricating, tightening nuts & bolts, dailly checking (checking equipment / machine state), simple repairs (replacing leaking hoses, welding tips) etc.

The objectives of the TPM are:

* Develop operators that are able to detect damage signals as early as possible. Because it is the production operator that really knows the state of the equipment to even the most detailed part.
* Creating a neat, clean workplace so that any irregularities can be detected as early as possible