



## PGMA - Panasonic Guided Manual Assembly helps to enhance manual assembly

### PGMA

Guidance Enforcement Key Values Increase operator's efficiency Get the assembly more reliable Improve product quality by higher yield Traceability Material Management Features Central storage of work flows and instructions Sharing and accumulate knowledge & know-how Avoid errors and increase motivation Cost saving by reducing error factor Connection to MES and/or ERP system Provide "just-in-time" required materials automatically Manual assembly included in the reporting loop Cost saving by more efficient production and material planning Typical use-cases for PGMA to guide & enhance are: Manual THT insertion Manual mechanical assembly Semiautomatic screw & nut mounting with and without torque control Manual visual inspection Semiautomatic testing and/or measurement Manual product packing and labelling incl. weight control (optional) Training for any manual assembly & activity The ROI (return of invest) period for PGMA implementation is typically much less than one year due to reduction of failures and mistakes, speeding up the assembly process and finally increase of user's motivation.

#### Key Features

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avoid any mistakes during assembly

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ensure an effective "zero-defect strategy"

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share knowhow by organizing work instruction and work flows

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introduce full traceability

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apply an effective end-to-end material management

PGMA

<https://ap.connect.panasonic.com/th/en/pgma>

<b>Controller as computer unit</b>	for guidance setup & work instruction administrationas central data storageincl. hardware interfaces and control
<b>Other</b>	Connection to MES and/or ERP systemInterface to PanaCIM Material Control for „just-in-time“ material preparationPanasonic laser projector for visualizationHigh-resolution camera with high-intensity lighting as AOITouch Panel as GUI (General User Interface)Monitor for local reporting / traceability of production dataMaterial boxes with Pick2light functionalityBarcode readerWorkplace table incl. suitable holders and fixturesConveyer with SMEMA interface
<b>Size</b>	Typical size (depends on configuration): W x D x H = 1,0 m x 1,2 m x 2,80 m
<b>Weight</b>	(depends on configuration): 200 kg