

<b>General (and Detailed) Requirements for an Instrument</b>	
<b>Who is the user?</b>	Engineer or lay person
<b>What is the purpose and general operation of the product?</b>	Examples: Measurement of analog values, storage, display, control, etc.
<b>Are there constraints?</b>	Power/Safety/Environment/Size/Weight/Cost/ Special timing requirements?
<b>What are the general interfaces to the outside world?</b>	<b>Inputs</b> (Analog, digital, switches, keypad ?) <b>Outputs</b> (Analog, digital ?) <b>Communication</b> (To PC/ other instruments?) <b>User inputs and responses:</b> What can the user choose? What will the user see or hear?
<b>Other Questions of a general nature.</b>	Are there constraints on manufacturing/ Is updating necessary/ Maintenance? What is the expected production volume - several units / large volume -a consumer product?
<b>More Technical Questions</b> <b>INPUTS</b>	<b>Inputs:</b> Number and type of inputs (Analog, etc) Range and resolution of values (i.e. 0-600volts +- 0.1 volts.) Frequency range (if it applies)
<b>PROCESSING</b>	Conversion to engineering units / Analysis ?
<b>ERROR CONDITIONS</b>	What are the error conditions and what is the action to be taken ? (i.e. Reset the system/ Ignore ?)
<b>OUTPUTS</b>	Type of display; number of digits; Update rate
<b>STORAGE</b>	What values are to be stored? / How many? What format?/ How retrieved
<b>ALARMS</b>	Alarm for over-range or bad data?
<b>ACCEPTANCE TEST</b>	What satisfies the user (or test users) that the product works as required?

NOTE: The emphasis in the General Requirements is on the operation of the product and its relation to the **OUTSIDE WORLD** - not the requirements for the components, etc and the internal workings - unless a requirement specifies particulars of the internal design.