Application Profile Form

NEWTON™
RESEARCH LABS INC

Date:	
Name:	**Tel:**
Title:	**Fax:**
Company:	**E-Mail:**
Products:	

Brief description of inspection task:

Type, size, location of flaws (fails) to be detected:

Permissible variations:
(are there other features that are not defects but could be mistaken as defects, are there instances of similar variation that are not defective)

Acceptable tolerance in part variation:
(this means the built- in manufacturing tolerance and variance of the parts ie – good parts vary in dimension by +/-.005")

Expected tolerance (accuracy) of vision system:
(this means the tolerance expected of the vision system – ie the vision system must measure to +/-.001" accuracy in order to accommodate the manufacturing tolerance)

What is the field of view for inspection?
(This is the minimum dimension of the part or section of the part that needs to be inspected, to include any range in part location if parts not in the same place every time)

Application currently being done: ☐**Manually** ☐**Not at all** ☐ **Vision***
***What vision product:**

Inspection rate: **Parts per** ☐**Second** ☐**Minute** ☐**Hour**

Parts moving ☐ or stable ☐ during inspection? Parts in same location ☐ same orientation ☐ each time?

Describe part fixturing, conveyance and presentation to the camera:
(What mechanism conveys them, is the speed constant, are the parts vibrating, are they same angle, orientation, rotation)

Describe part spacing:
(Are the parts evenly spaced ,if not, will they ever touch one another)

Describe the background (available space and the color) behind and under the parts:
(Is there room for a backlight if needed, will bright reflections or background color affect the inspection)

Distance from part to camera: Known Minimum **Known Maximum**

Any other (mounting) space limitations?
(for lights, cameras, cable runs, shrouds, enclosures)

Describe input to camera to start inspection:

Describe ambient lighting:
(What type of light is it and how high is it mounted. Are there any windows or skylights in the vicinity.)

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How will inspection results be used (output from system):

Reject criteria:
(reject on presence, absence, out of tolerance, off color, etc. Also, if multiple inspection points, reject on first occurrence of defect or only after all points inspected)

What is the reject mechanism?
(Does it exist already, what type of output signal does it need)

Platform:	☐ **NT**	☐ **Win 95,98**	☐ **Unix**	☐ **Mac**
Lines to automate:	☐ **1**	☐ **2-5**	☐ **6-10**	☐ **11+**
Plan to buy:	☐ **Now**	☐ **1-3 months**	☐ **6 months**	☐ **1 year**
Budget approved:	☐ **Yes**	☐ **No**	**Amount:**	

What is the justification for the vision system?
(ie – need for 100% inspection, the system will replace 2 people per shift, reduce scrap by 12%, reduce product return, reduce reworks, increase throughput, etc.)

Sample parts available: ☐ **Yes** ☐ **No**
(typically both good and defective samples)

Are drawings, sketches, videos, and/or digital pictures available:
(digital pictures of the parts, inspection area, ambient lighting and surroundings, etc are very helpful and usually very easy to accommodate and email to Newton Labs.)

Notes:

Misc

Do you wish to have the images with defects highlighted and displayed on a monitor for the floor operator to view?

Do you wish/need to have a permanently installed industrial PC on the line?
(typically a lap top is used for set up, then disconnected and the system runs stand alone)

Do you wish to have operator access to the software limited or password protected?
(A designated set up person will have full access to all software – this is usually a different person than the operator of the system)