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(51) International classification	:H01R0043042000, G11B0007003700, H01M0010052500, G01N0029110000, B23P0019027000	(71) Name of Applicant : 1)Sathiyavel Address of Applicant :Dr.A.P.J.Abdulkalam Research centre,Marichetti Halli(Village & Post) Tamil Nadu India 2)Dr.M.P.SenthilKumar 3)Dr. K. Padma Priya 4)Dr.Lizy Abraham 5)Dr.R.Sumathi 6)Mr. A.Jaya Kumar
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(57) Abstract :

The present innovation relates to AI algorithm based Hydraulic crimping tool quality testing method comprising Raspberry- Pi microcontroller Camera (1) which capture crimping tool images and compare with stored images via real time algorithm made using AI. If the images are proved to be same via Raspberry- Pi microcontroller system(2) , then its output become high state and does not follow magnetic property .So electromagnetic coil(3) will not attract unsorted crimping tool. If the images are not same then output become low state and follow the magnetic property so that dissimilar tools are attracted by electromagnetic coil(3).To release these tools stepper motor(5) rotated in forward direction from 0 deg to 180 deg by providing ~one™ as a threshold value via Raspberry- Pi microcontroller. Finally all dissimilar tools are collected separately through AI automation program. The entire Quality testing unit is operated via power unit which includes AC-DC charger module &DC-DC Step-down converter (10) , Charge controller (7) and Lithium Ion Battery(8).

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