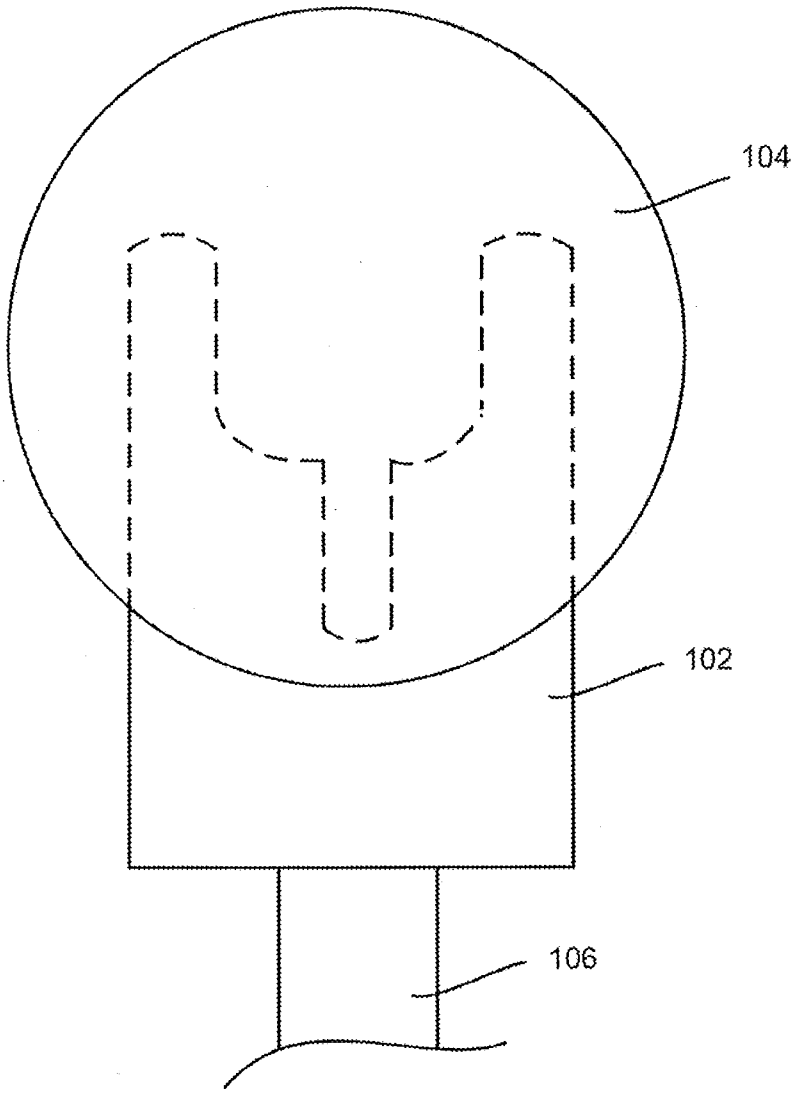


FIG. 1
(PRIOR ART)

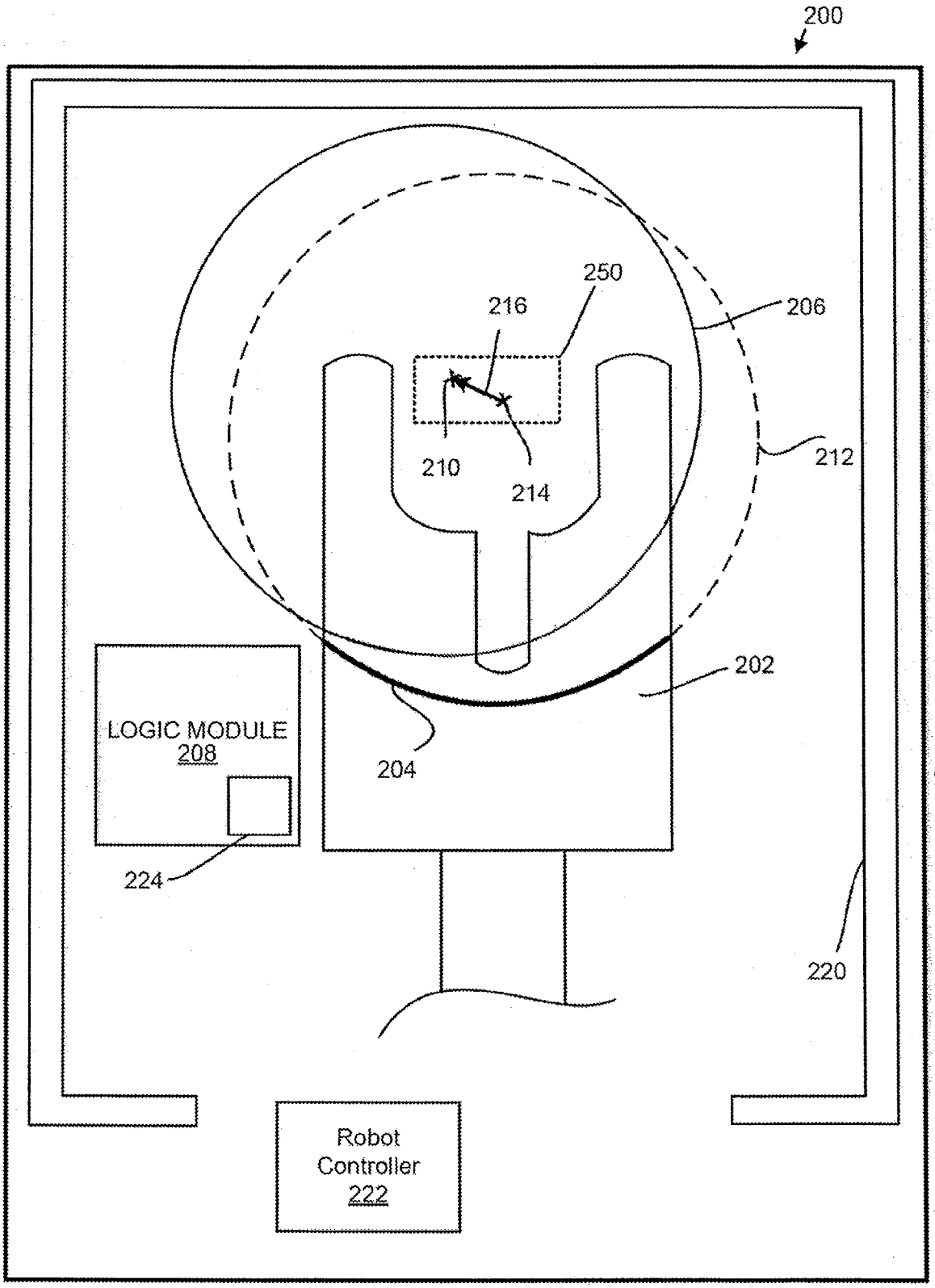

200
250
216
206
210
214
212
LOGIC MODULE
208
202
204
224
220
Robot
Controller
222

FIG. 2

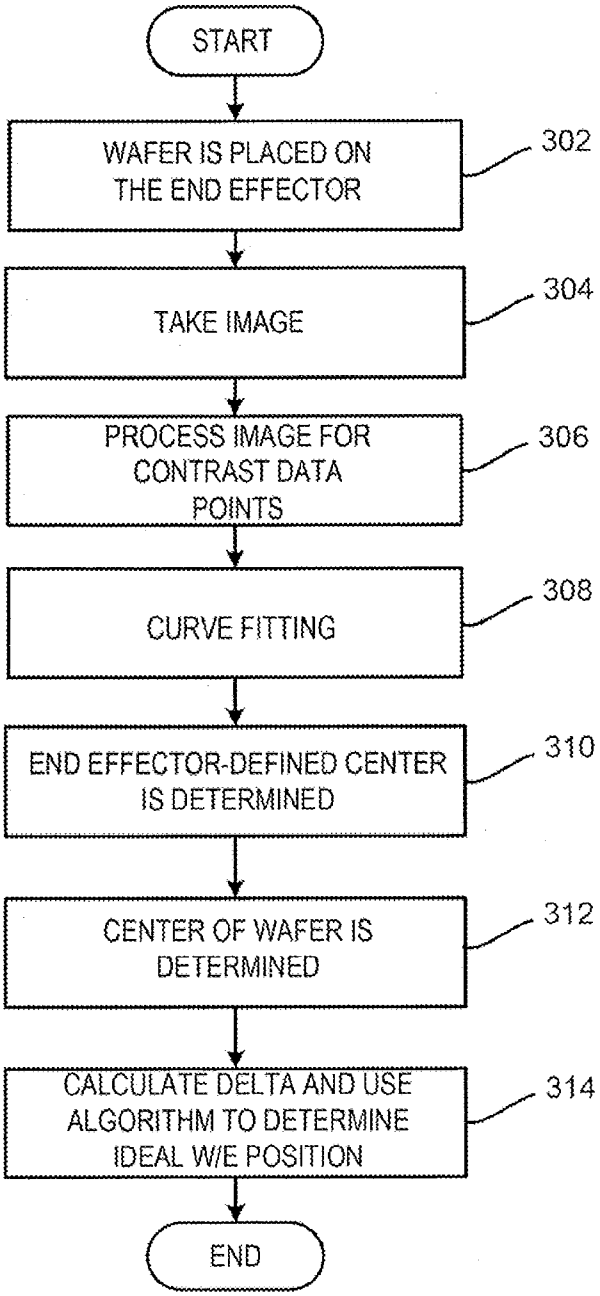

START
WAFER IS PLACED ON THE END EFFECTOR
302
TAKE IMAGE
304
PROCESS IMAGE FOR CONTRAST DATA POINTS
306
CURVE FITTING
308
END EFFECTOR-DEFINED CENTER IS DETERMINED
310
CENTER OF WAFER IS DETERMINED
312
CALCULATE DELTA AND USE ALGORITHM TO DETERMINE IDEAL W/E POSITION
314
END

FIG. 3

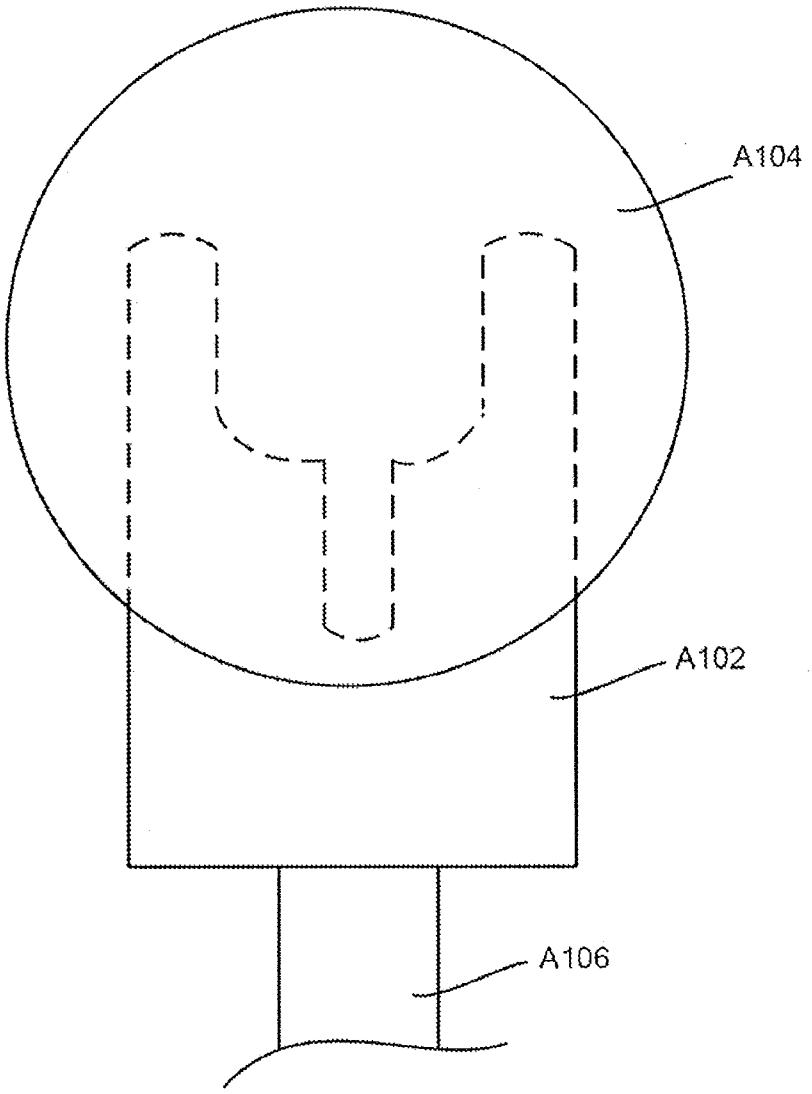


FIG. A1
(PRIOR ART)

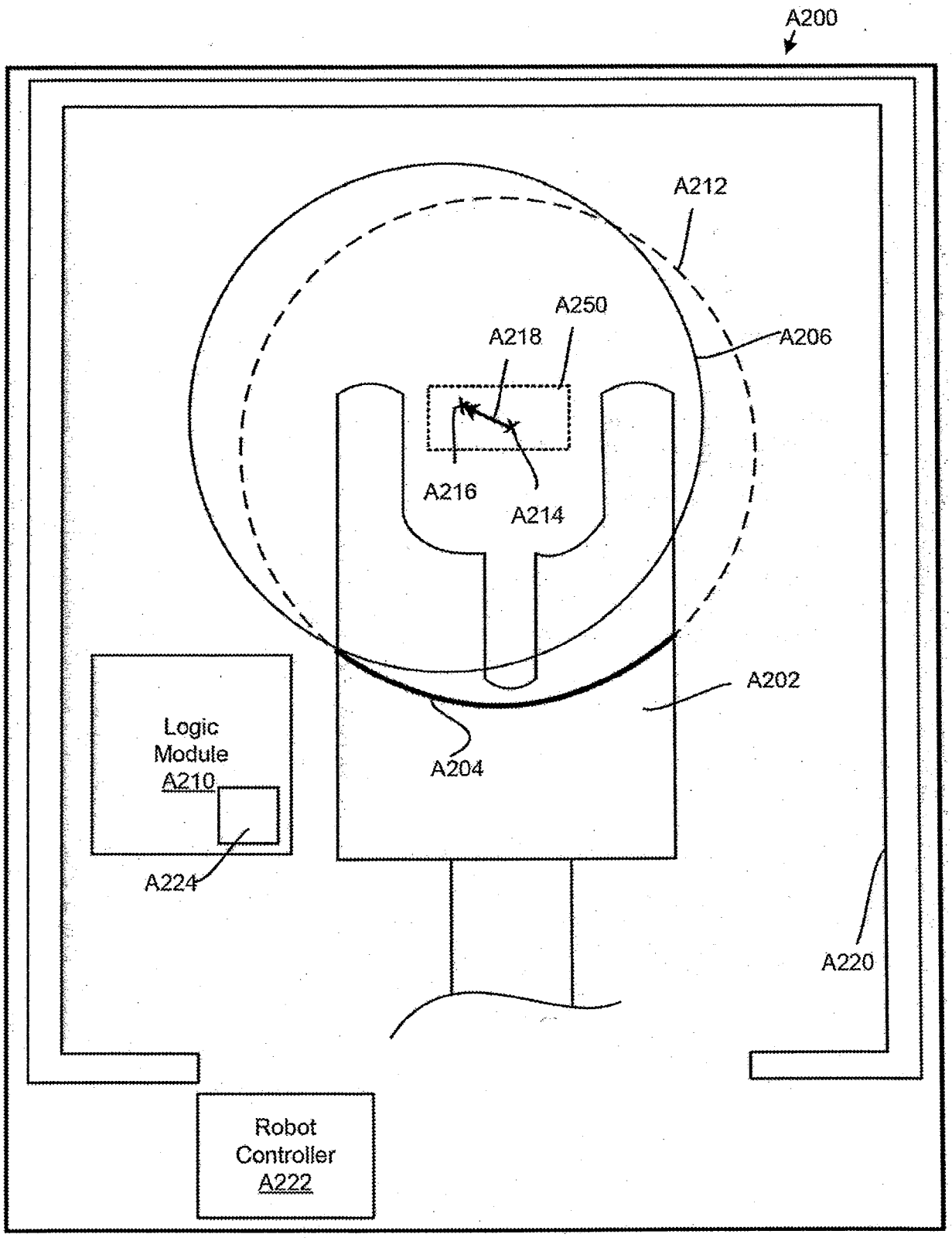

A200
A212
A250
A218
A206
A216
A214
A202
A204
Logic
Module
A210
A224
A220
Robot
Controller
A222

FIG. A2

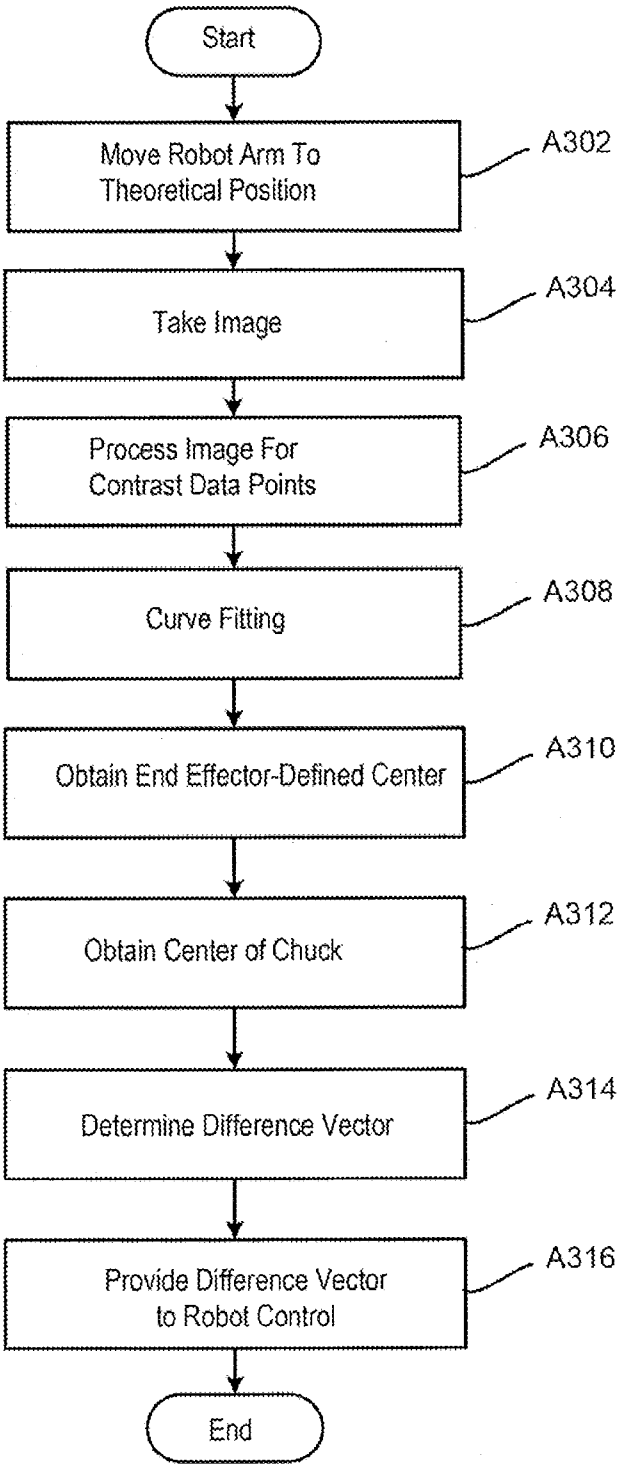

Start
Move Robot Arm To Theoretical Position
A302
Take Image
A304
Process Image For Contrast Data Points
A306
Curve Fitting
A308
Obtain End Effector-Defined Center
A310
Obtain Center of Chuck
A312
Determine Difference Vector
A314
Provide Difference Vector to Robot Control
A316
End

FIG. A3