

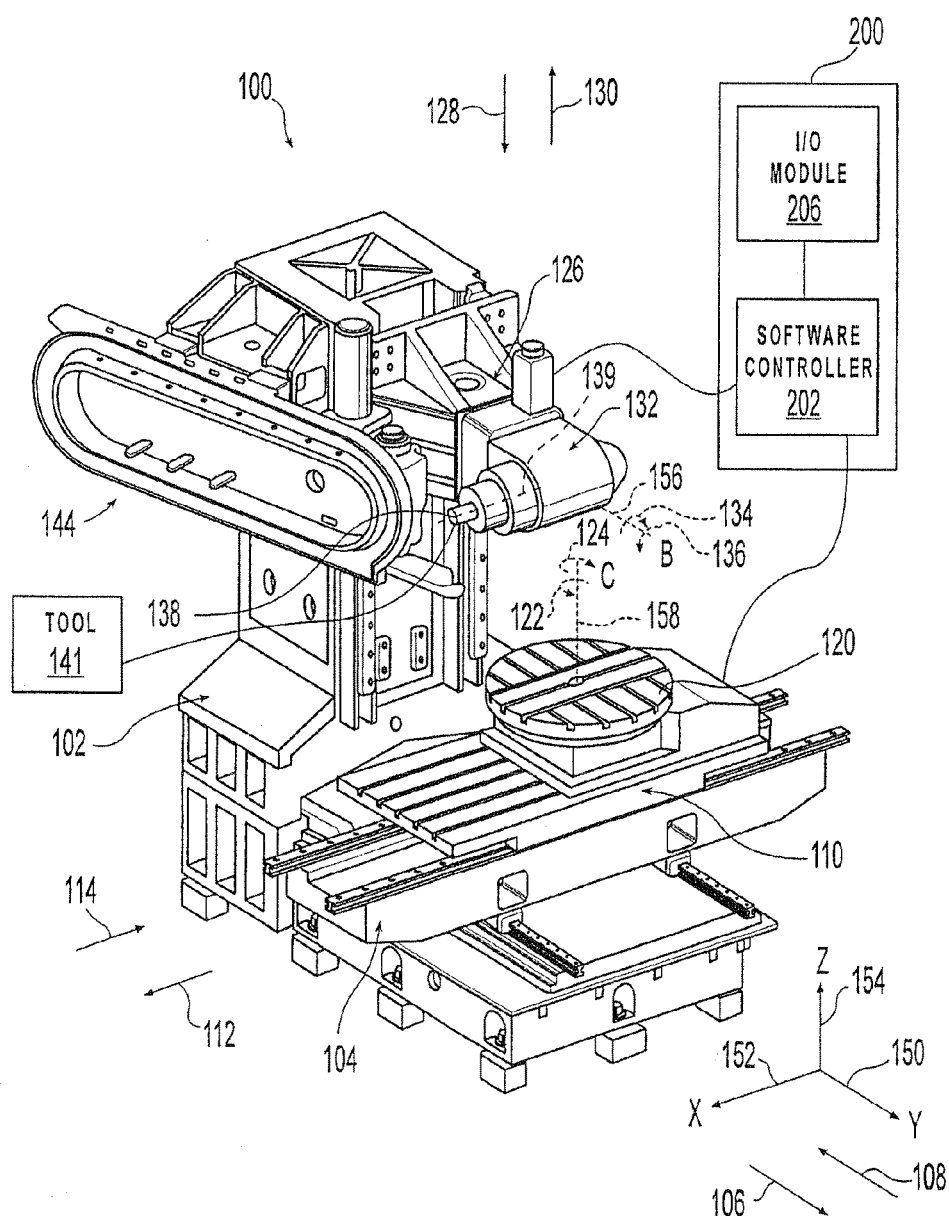


Fig. 1

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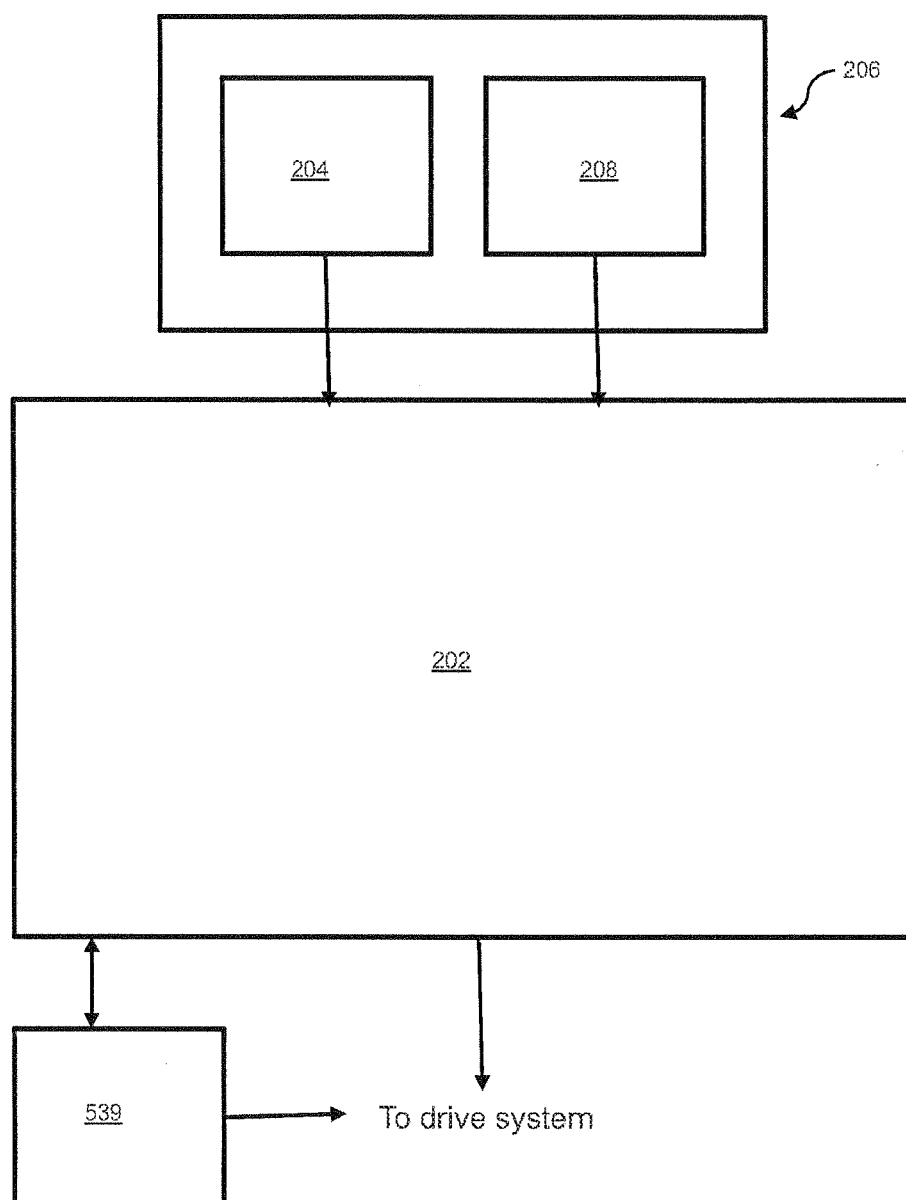


FIG. 2

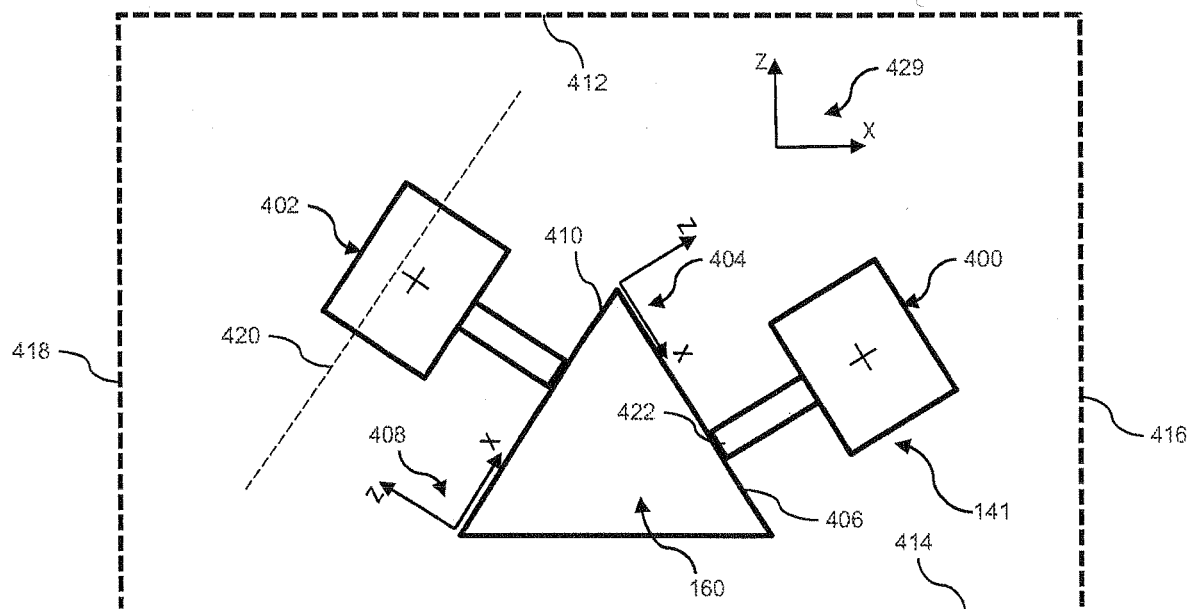


FIG. 3

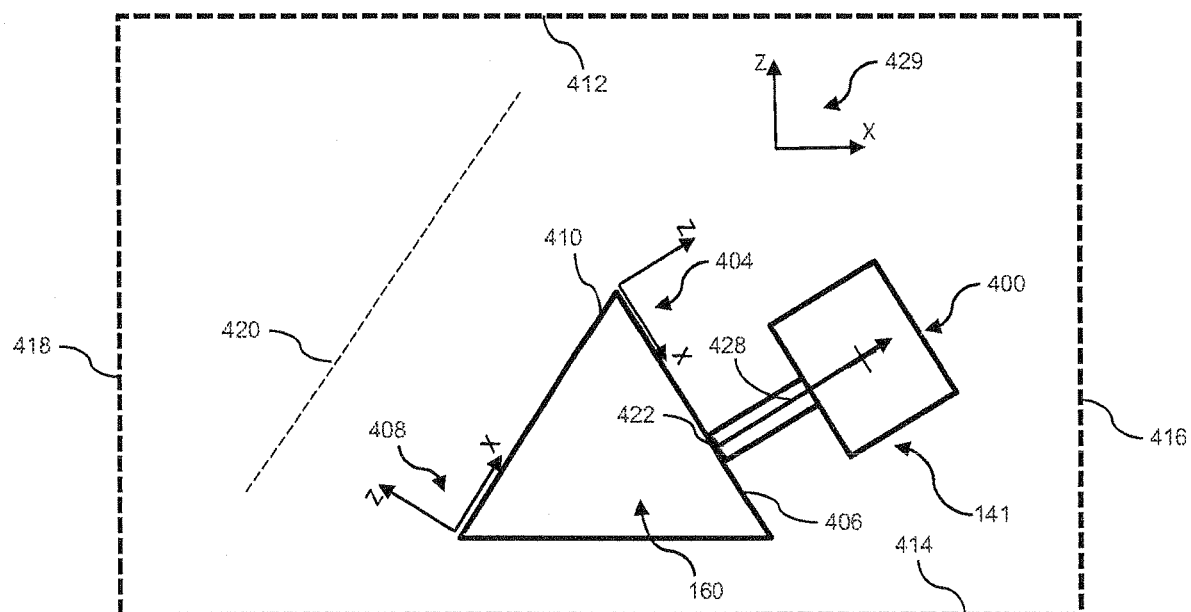


FIG. 4

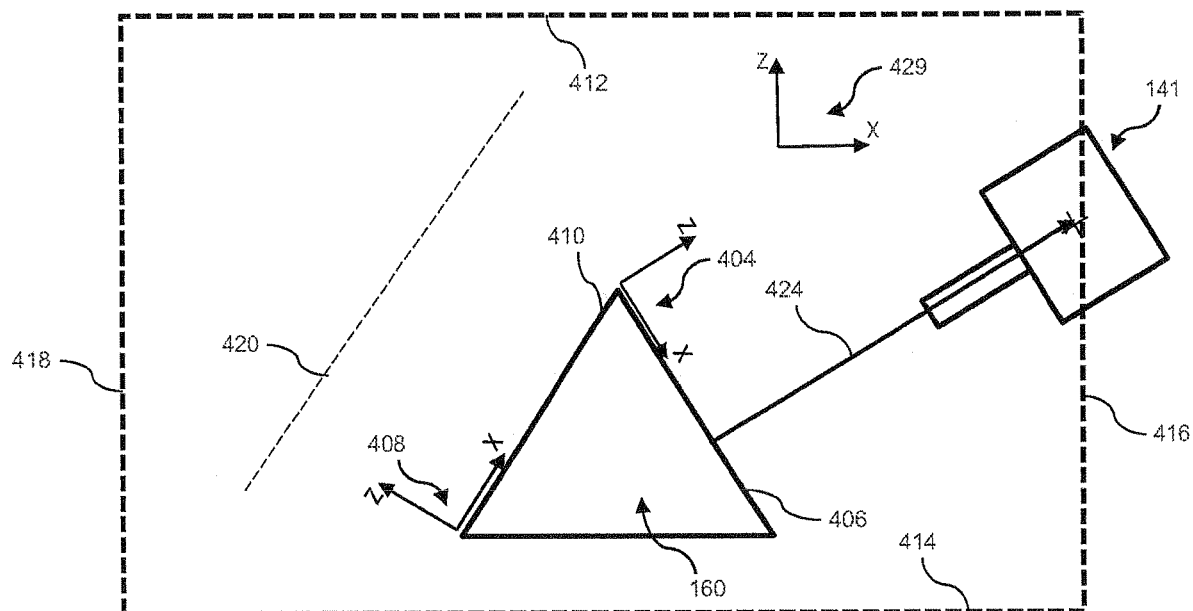


FIG. 5

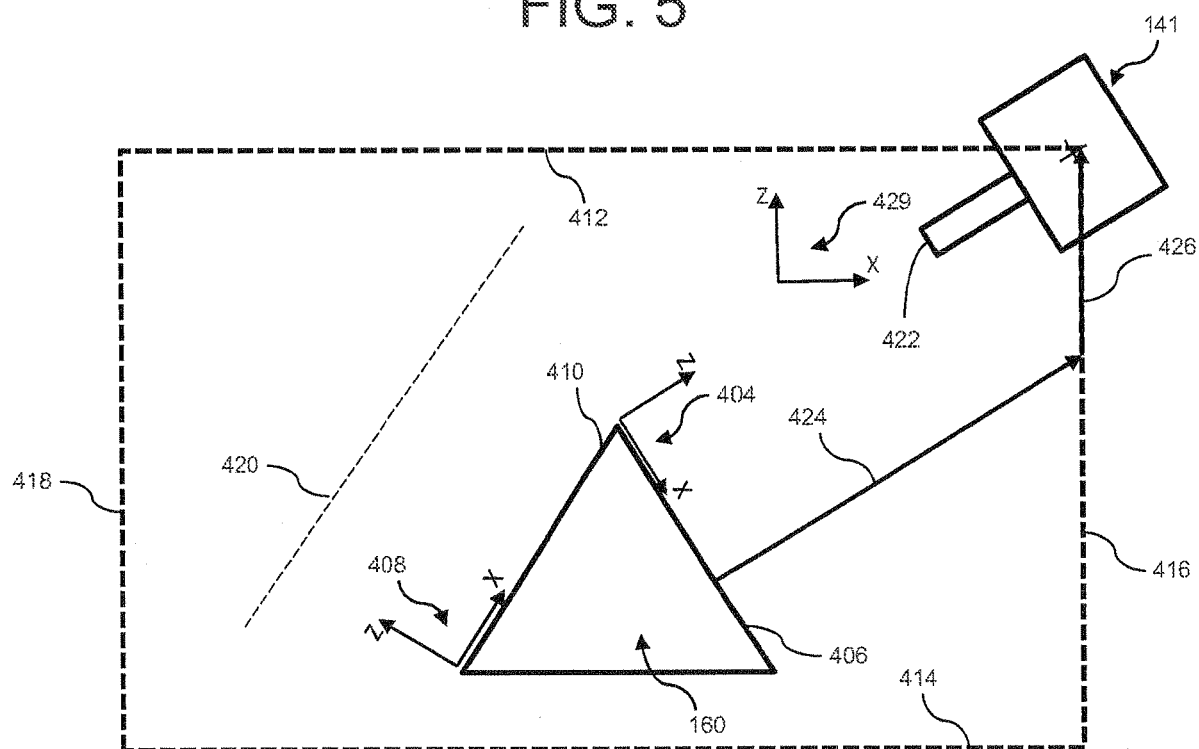


FIG. 6

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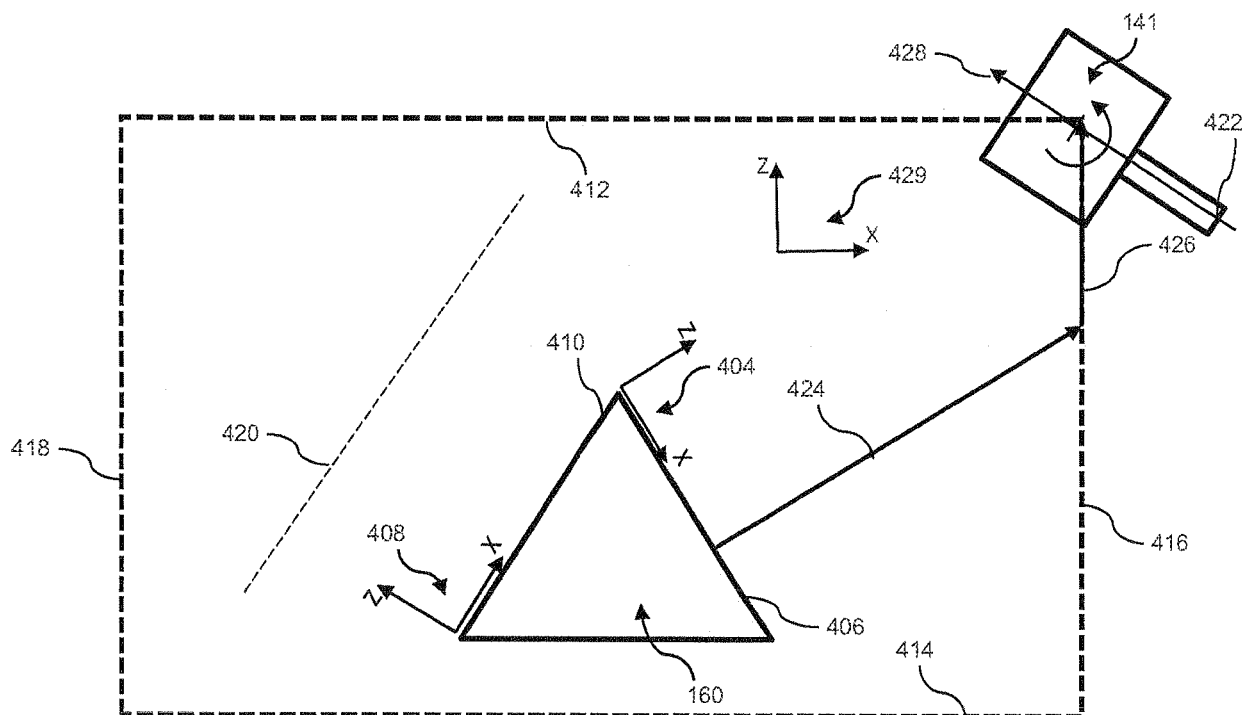


FIG. 7

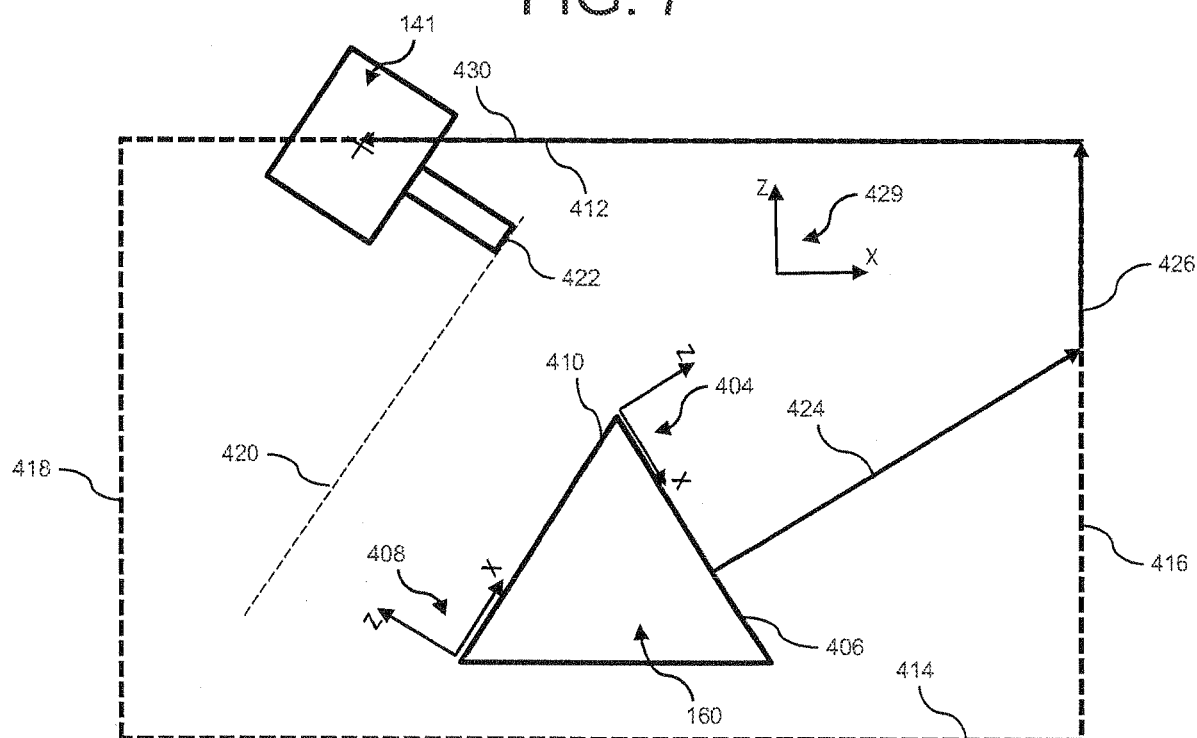


FIG. 8

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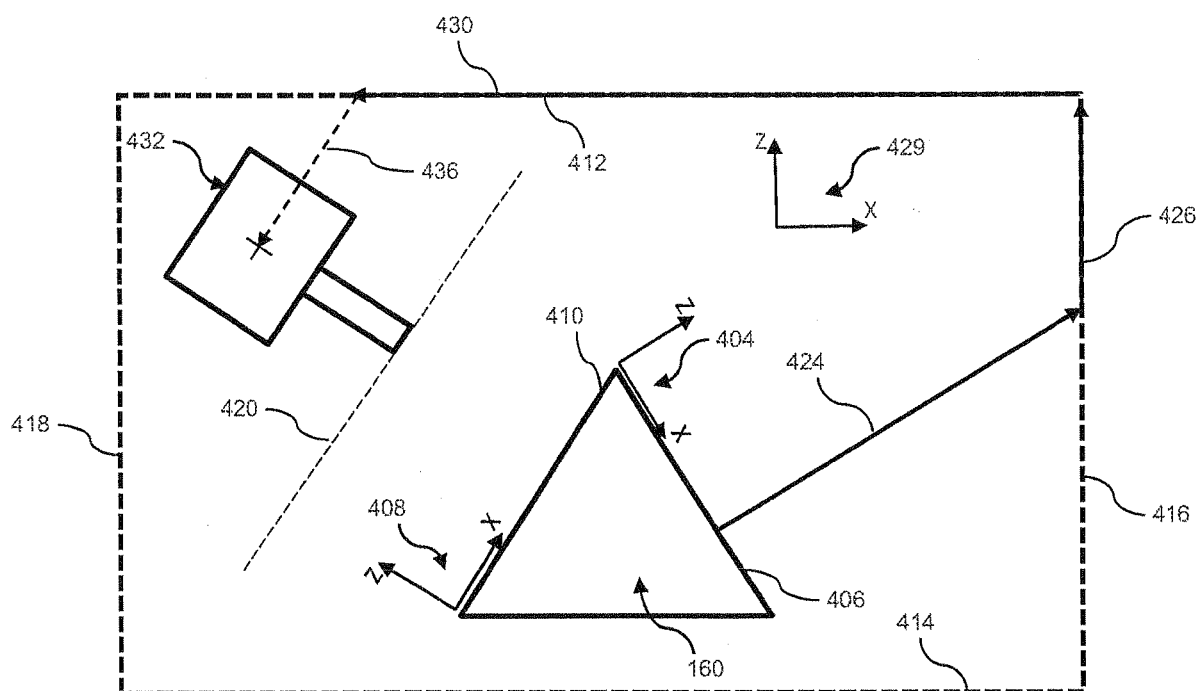


FIG. 9

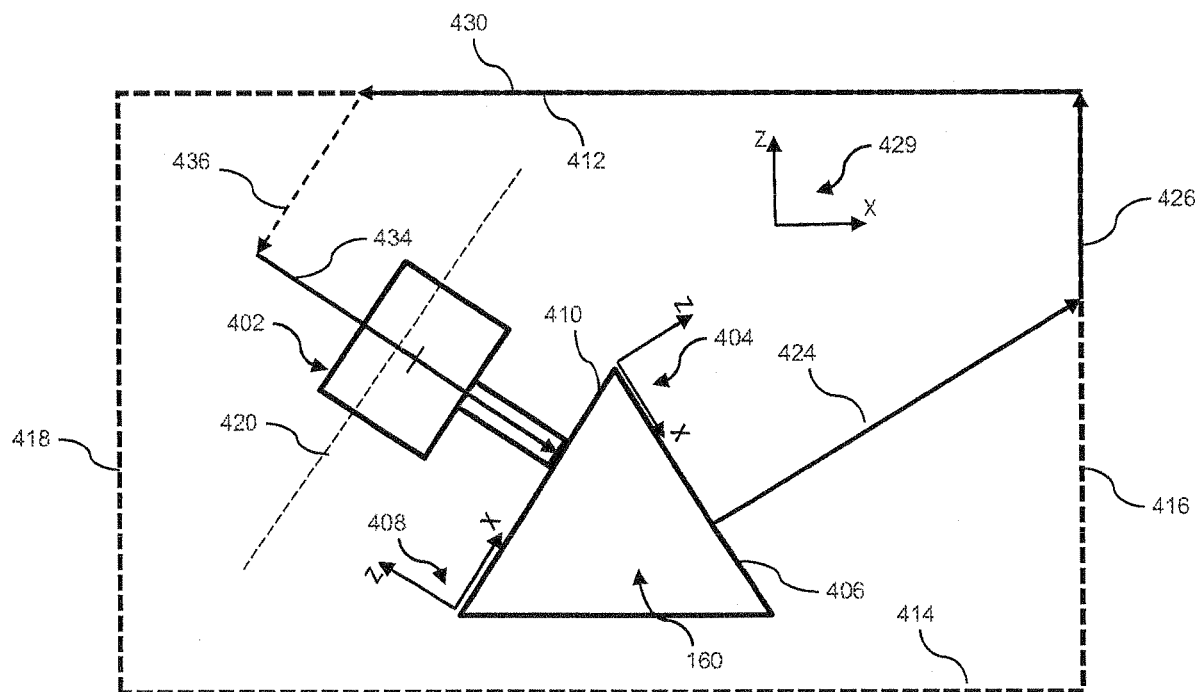


FIG. 10

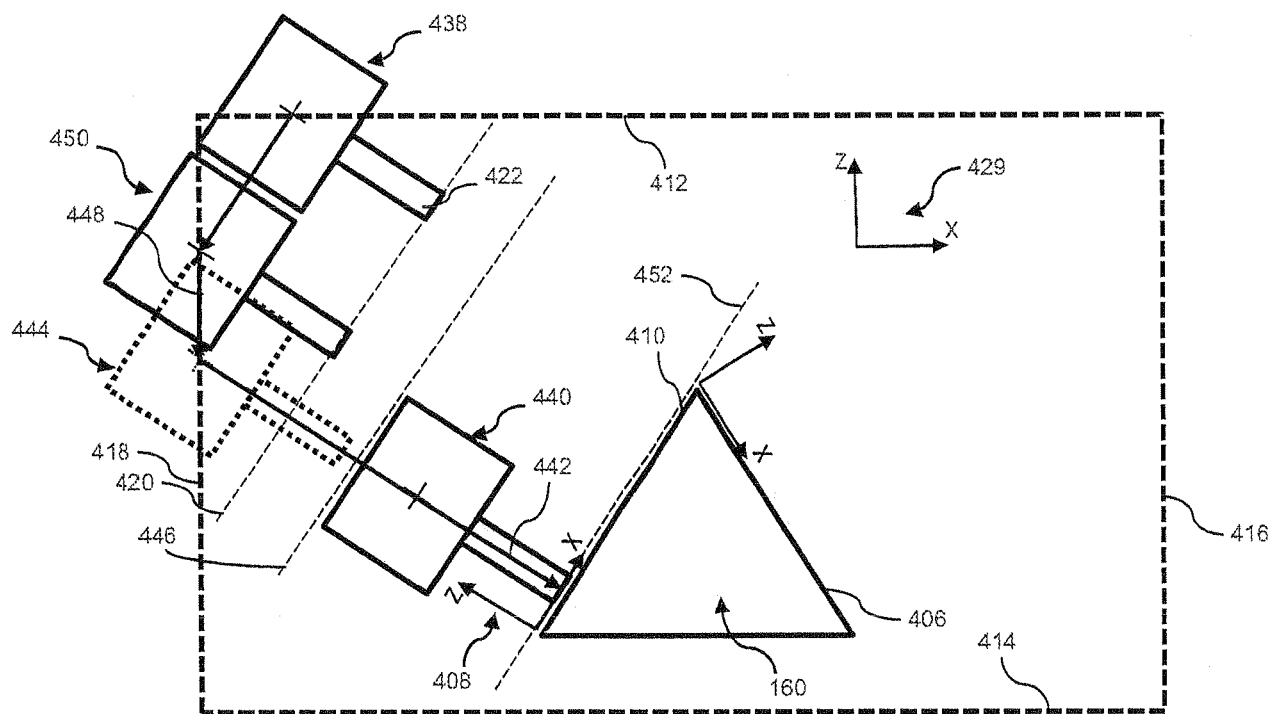


FIG. 11

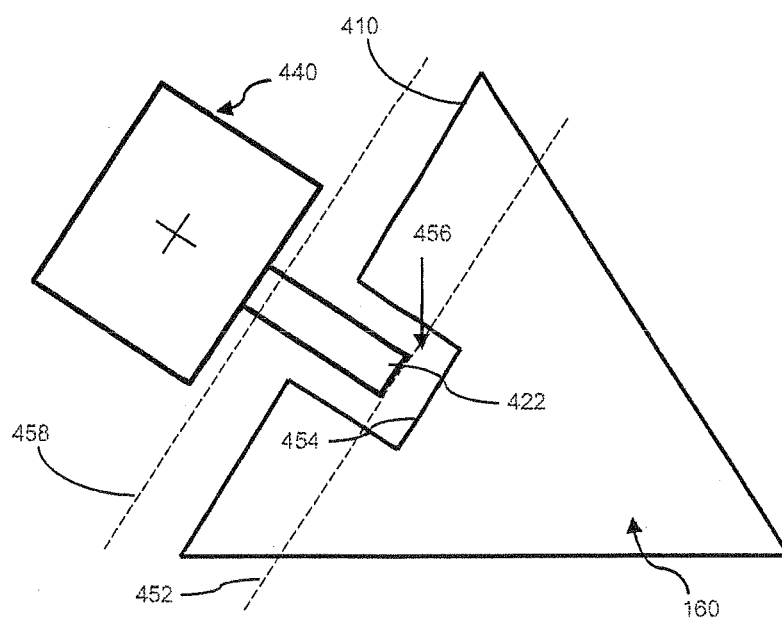


FIG. 12

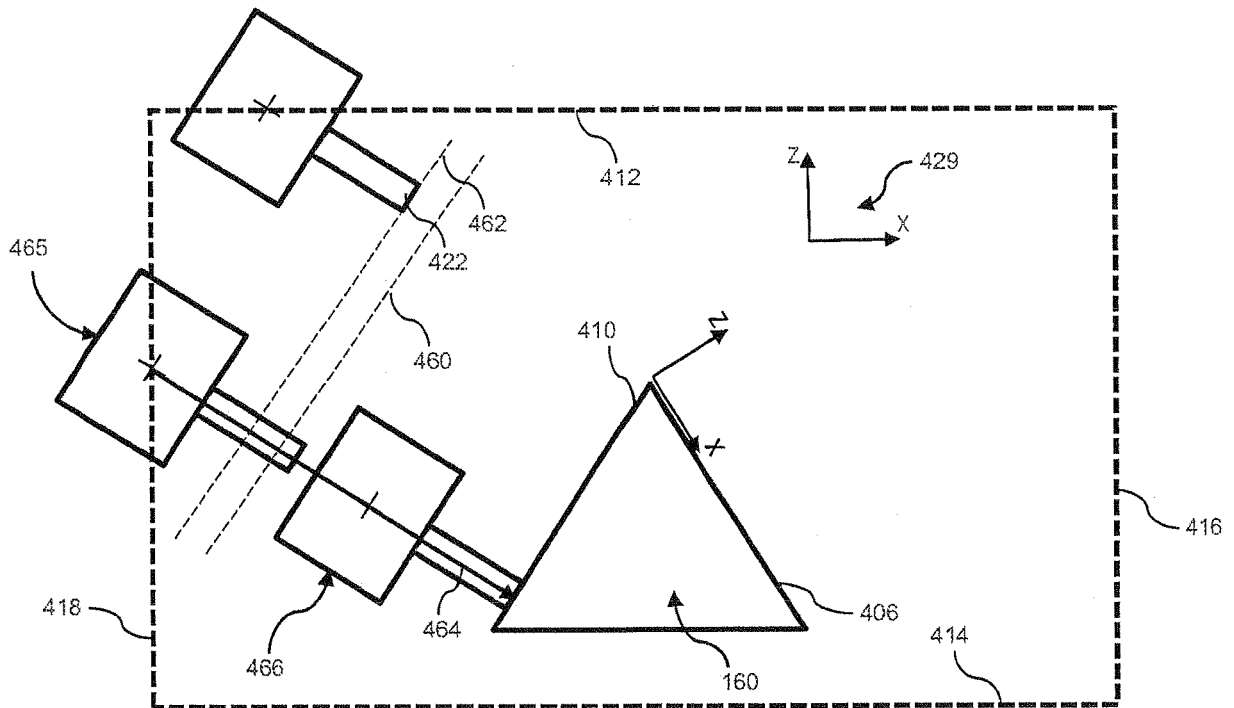


FIG. 13

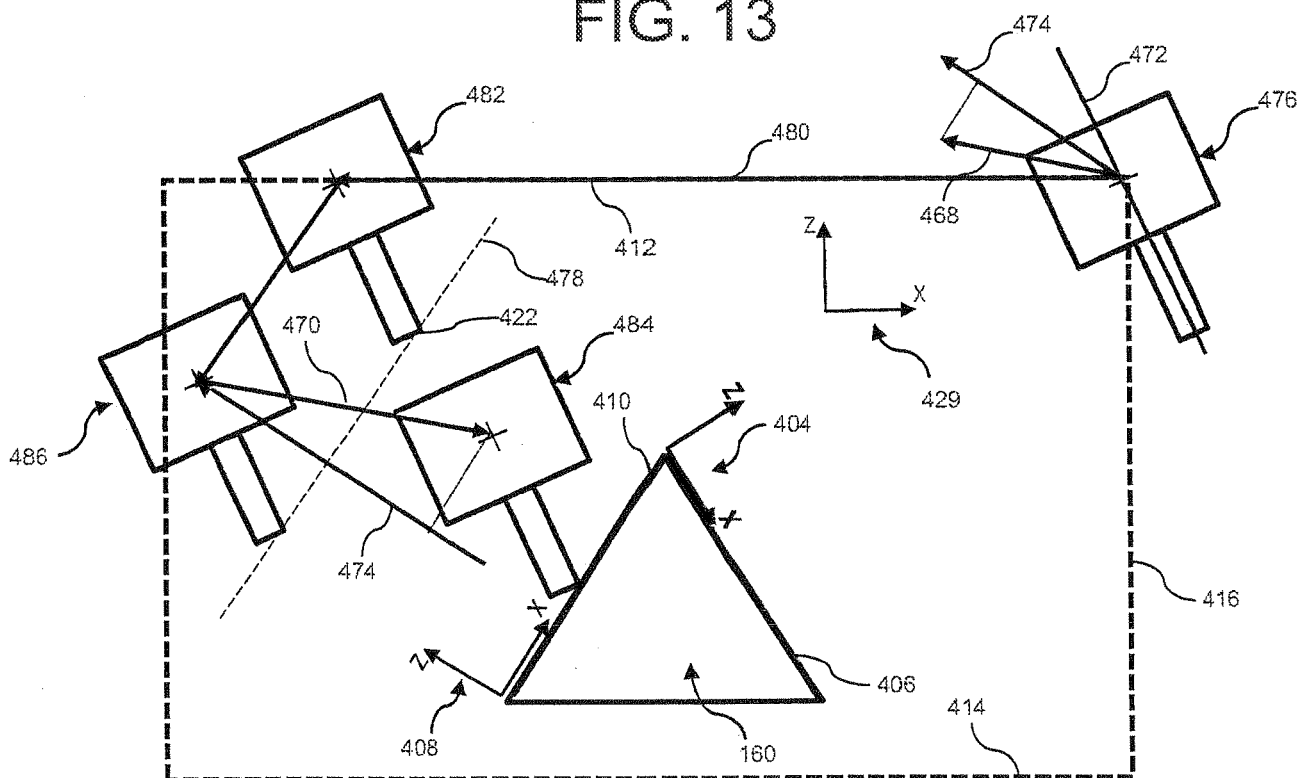


FIG. 14

492	% Program Start	
	N1 G08.1	Buffer ON
	N2 T1 M6	Move tool #1 into spindle
490	N3 G68.2X50. Y-50. Z0.I0.J0.K-1.U0.V1.W0.	Call Transform Plane coordinate system: X-direction vector = {0,0,-1} Y-direction vector = {0,1,0}
	N4 S3000M3M8	Spindle speed 3000 rpm, Spindle rotate clockwise on, coolant on
	N5 G0X0.Y0.Z5.I0.J0.K1.	Orient tool vector to {0,0,1} direction and rapid move to {0,0,5} with respect to Transform Plane
500	N6 G08.2 X0.Y0.Z100.A0.B0.C1\ I0.J0.K50.U0.V0.W-1\ R1.	Buffer Off command
	N7 G1Z-5.F500.	Plunge at slow feedrate
	N8 G1X100.F1000	Mill a 100mmx100mm square on RHS of block at feedrate of 1000mm/min
	N9 Y100.	
	N10 X0.	
	N11 Y0.	
	N12 M5M9	Spindle off, Coolant off
	N13 G69	Transform Plane Off
492	N14 G08.1	Buffer ON
	N15 G68.2X-50. Y-50. Z-100. I0.J0.K1.U0.V1.W0.	X-direction vector = {0,0,1} Y-direction vector = {0,1,0}
	N16 G0X0.Y0.Z5. I0.J0.K1.	Orient tool vector to {0,0,1} direction and rapid move to {0,0,5} with respect to Transform Plane
	N17 M3M8	Spindle rotate clockwise on (at 3000 rpm), coolant on
	N18 G08.2 L95. Q45.	Buffer Off command
500	N19 G1Z-5.F500.	Plunge at slow feedrate
	N20 G1X100.F1000	Mill a 100mmx100mm square on RHS of block at feedrate of 1000mm/min
	N21 Y100.	
	N22 X0.	
	N23 Y0.	
	N24 M5M9	Spindle off, Coolant off
	N25 G0M140	Retract tool from cut to machine limits
	N26 G69	Transform Plane Off
	N27 M02	Program Stop
	N28 E	Program End

FIG. 15

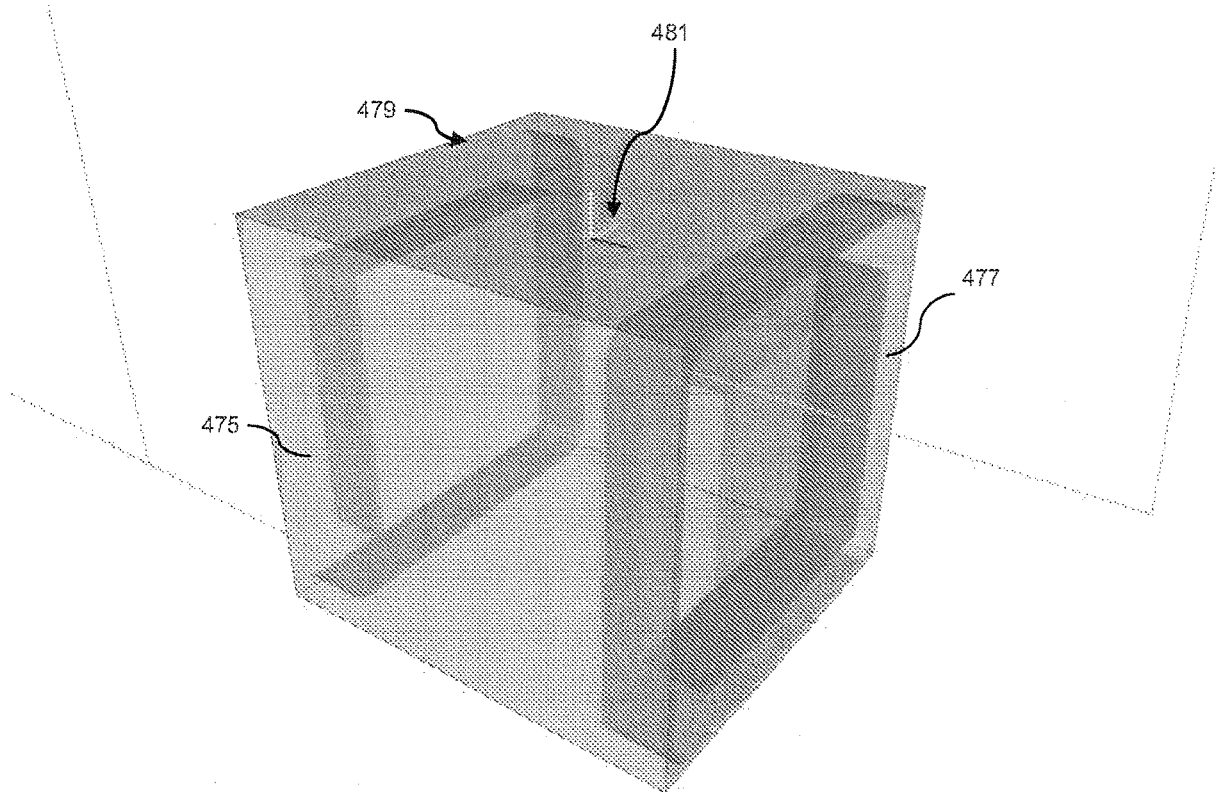


FIG. 15A

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**Program Command Processing
("PCP") Algorithm**

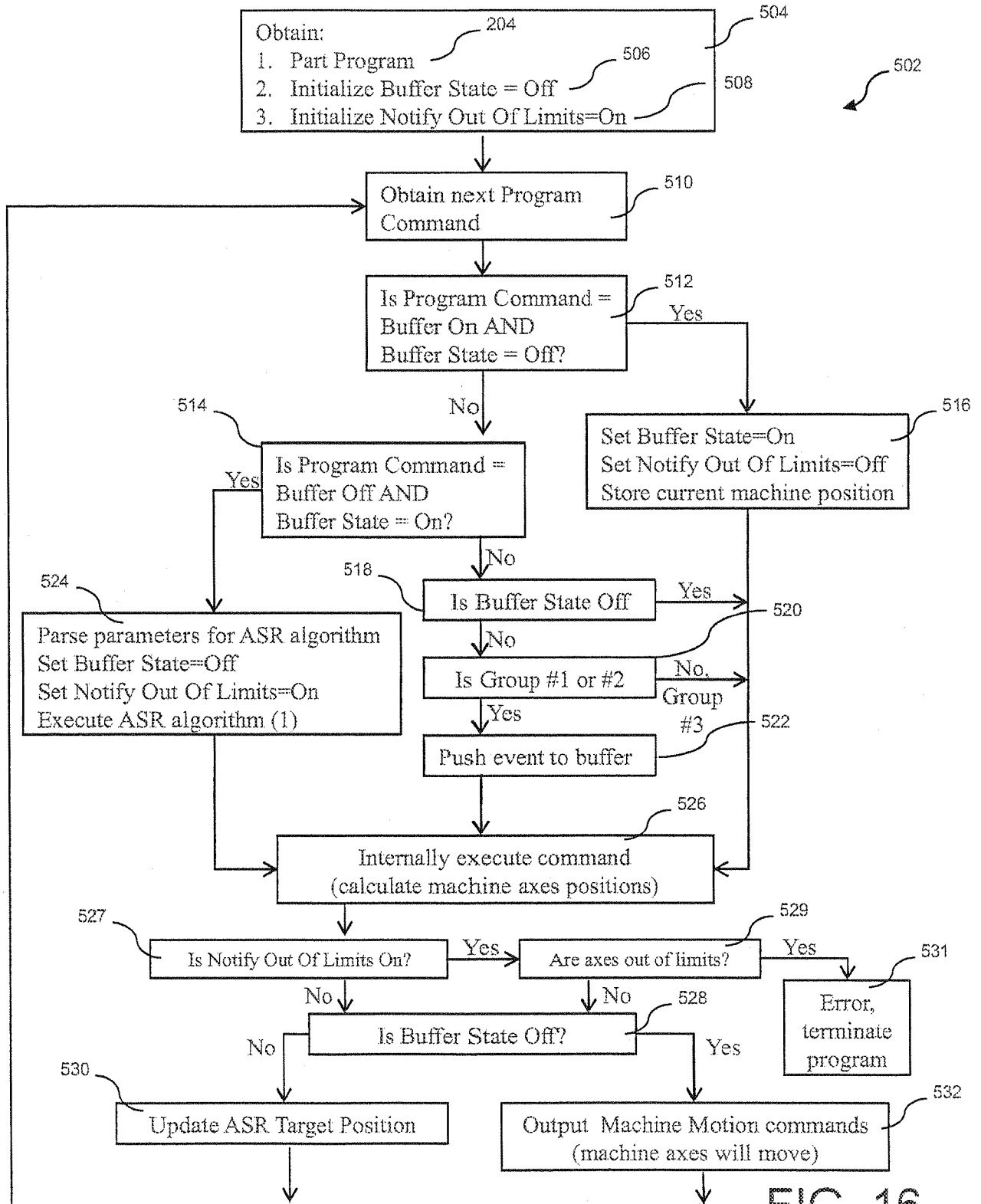


FIG. 16

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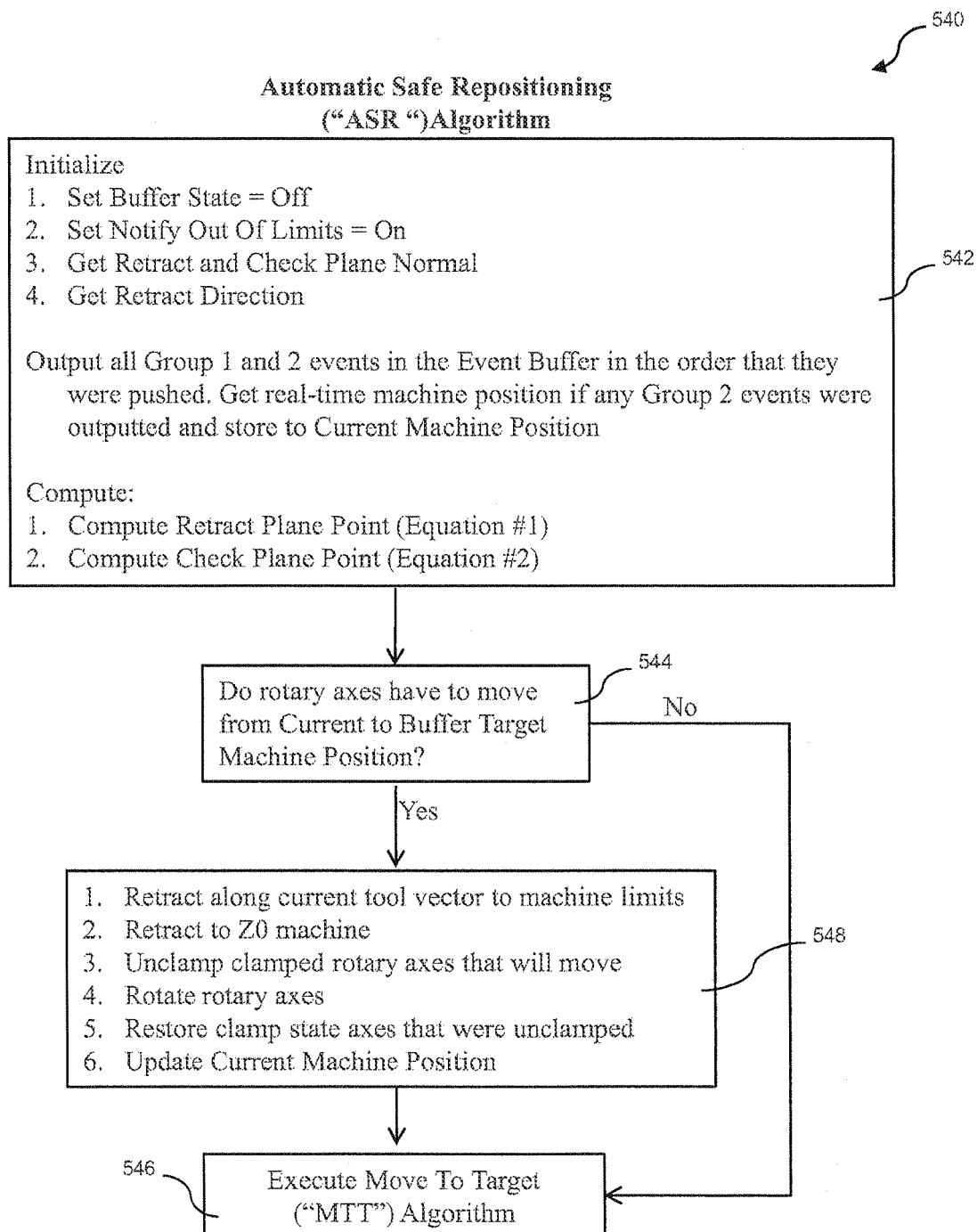


FIG. 17

Move To Target ("MTT") Algorithm

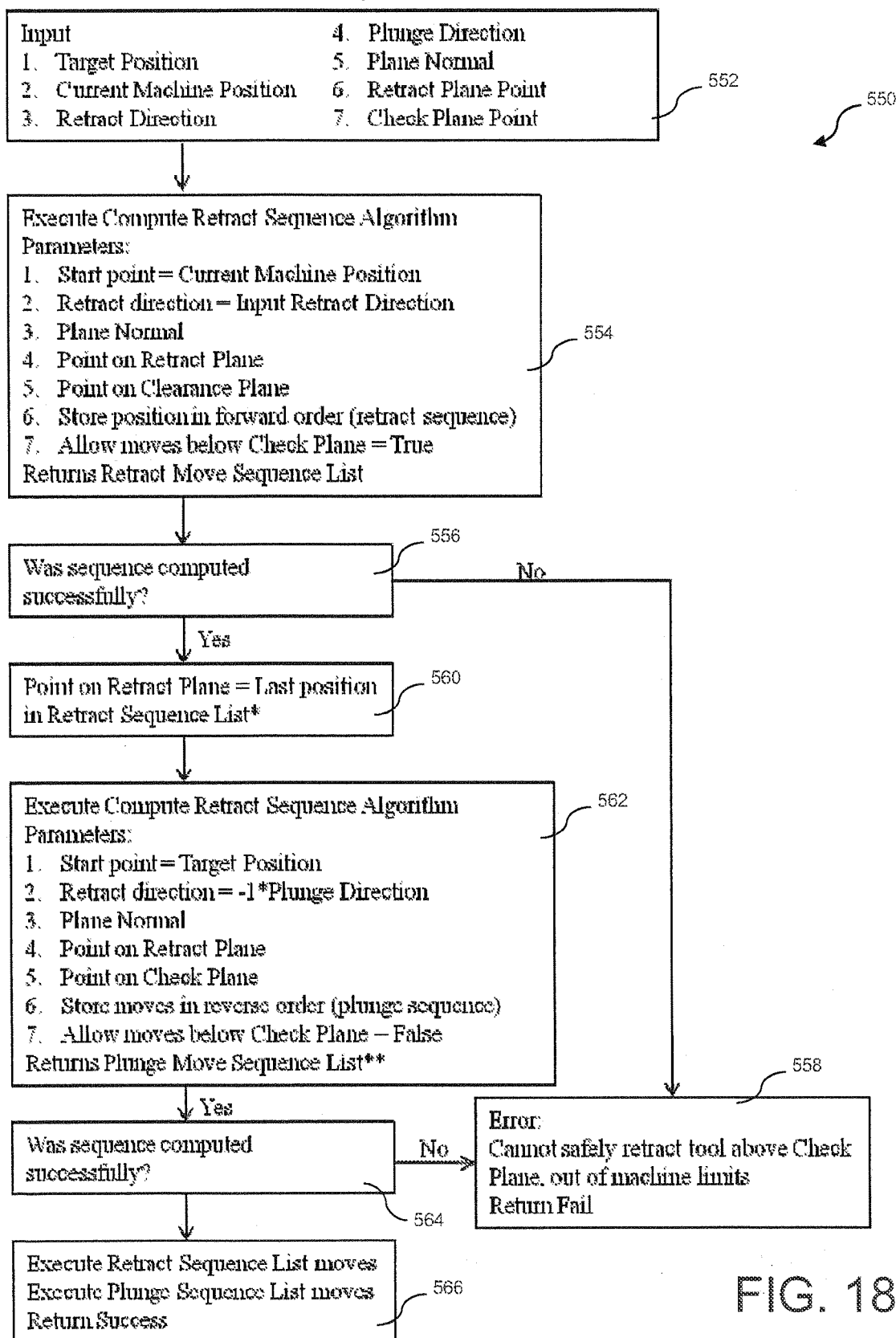


FIG. 18

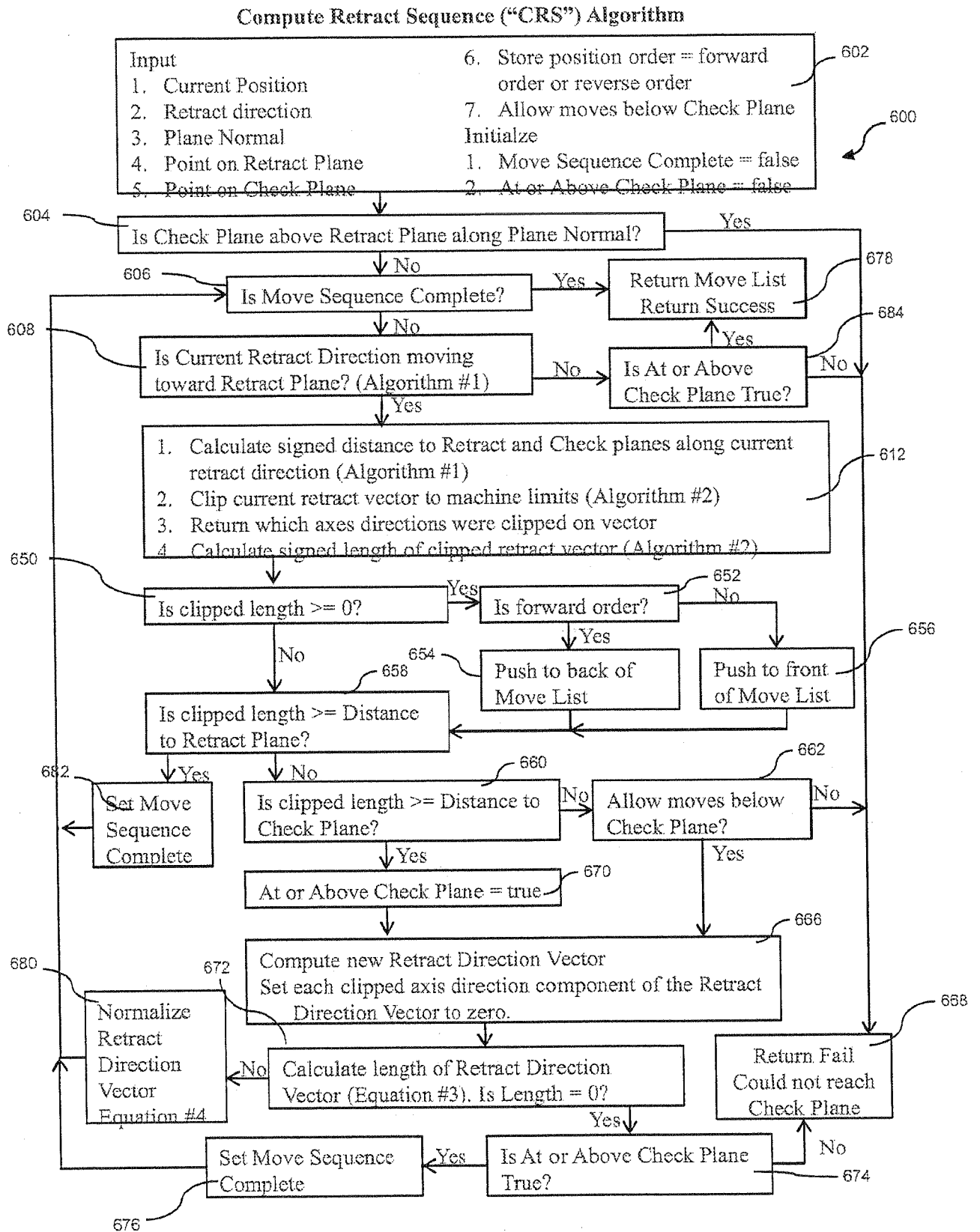


FIG. 19

Clip Vector Motion ("CVM") Algorithm

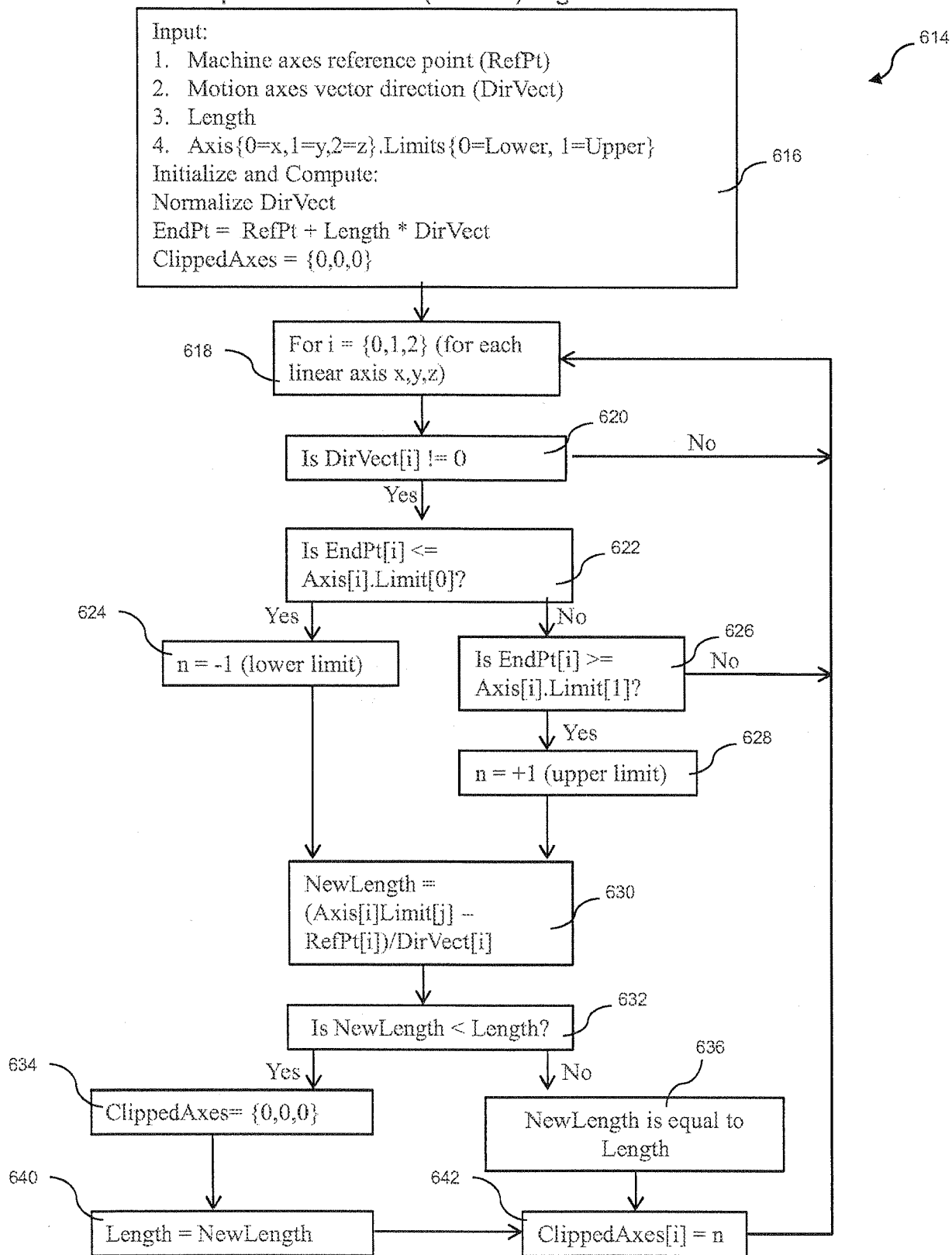


FIG. 20

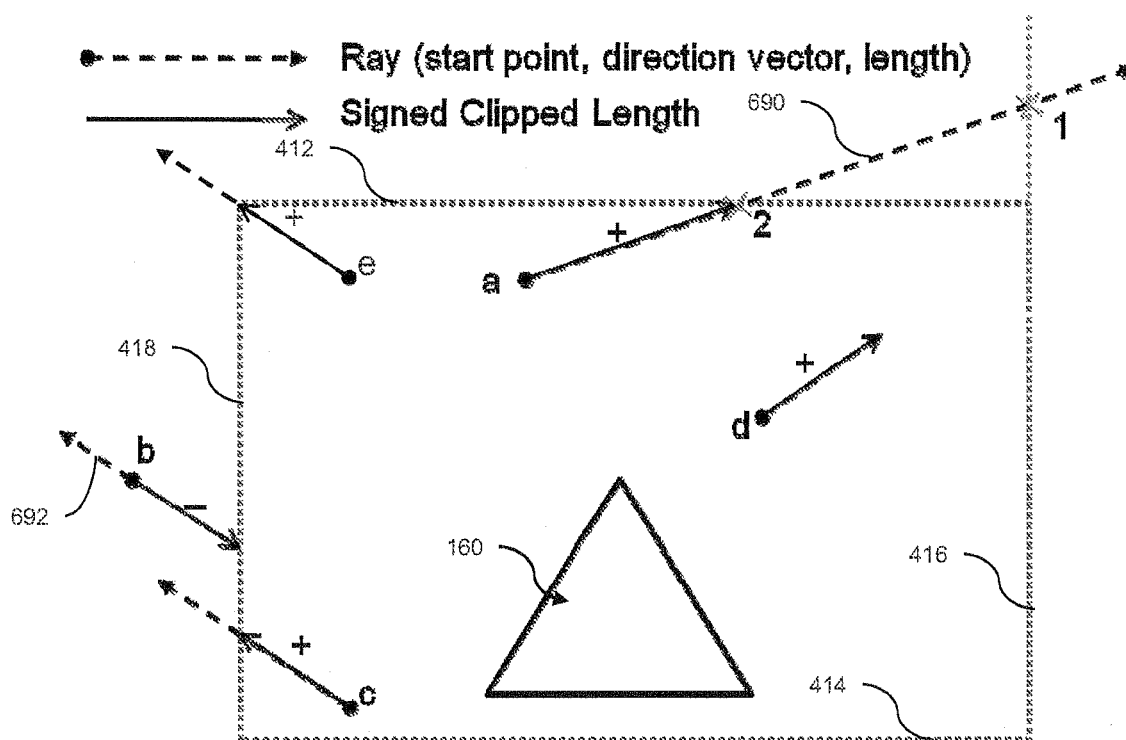


FIG. 21

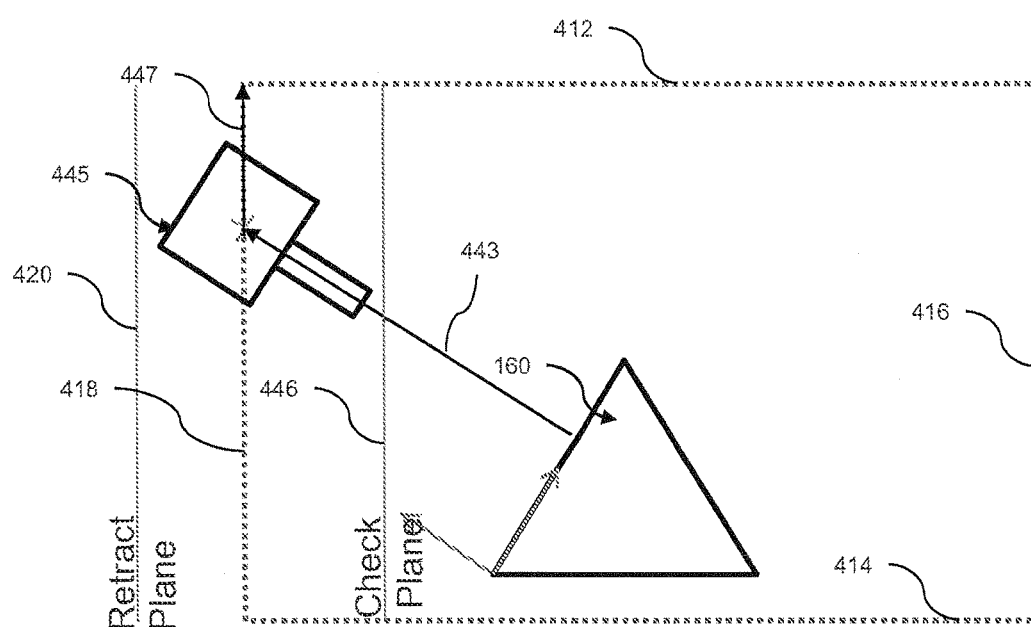


FIG. 22