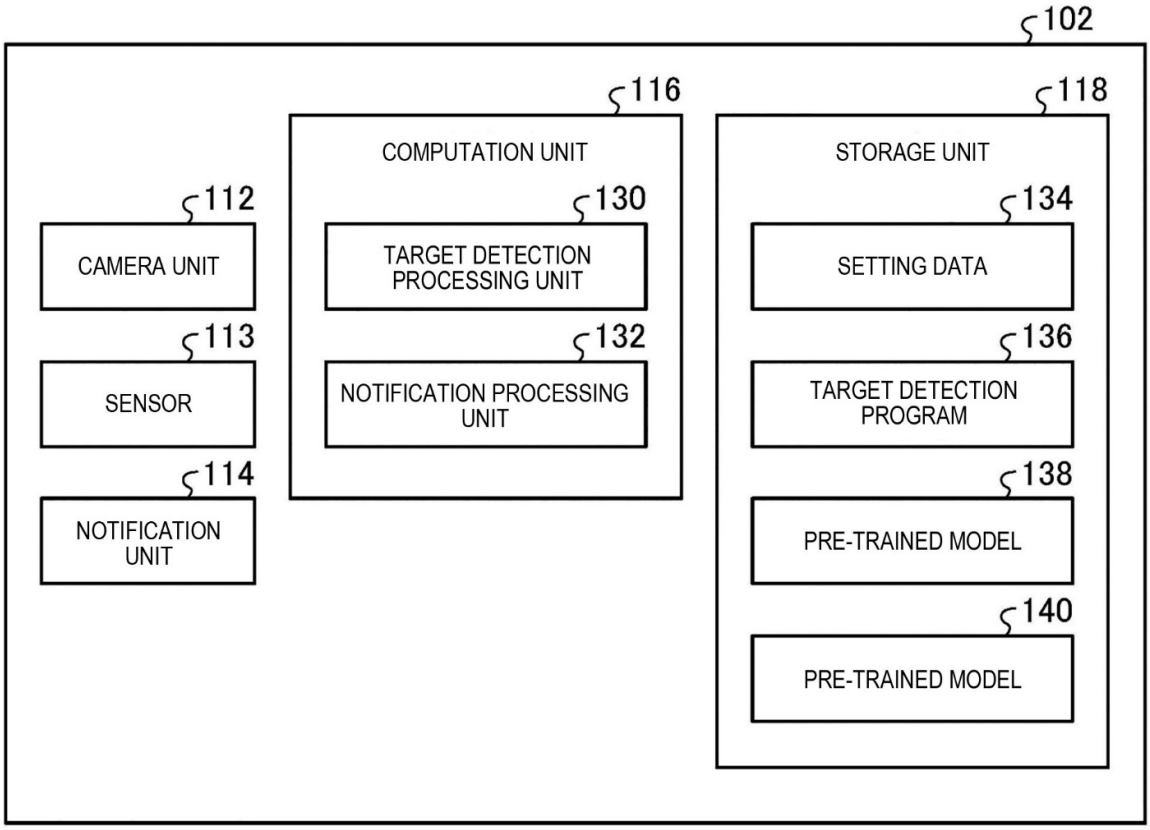

102
116
COMPUTATION UNIT
118
STORAGE UNIT
112
CAMERA UNIT
130
TARGET DETECTION PROCESSING UNIT
134
SETTING DATA
113
SENSOR
132
NOTIFICATION PROCESSING UNIT
136
TARGET DETECTION PROGRAM
114
NOTIFICATION UNIT
138
PRE-TRAINED MODEL
140
PRE-TRAINED MODEL

FIG. 1

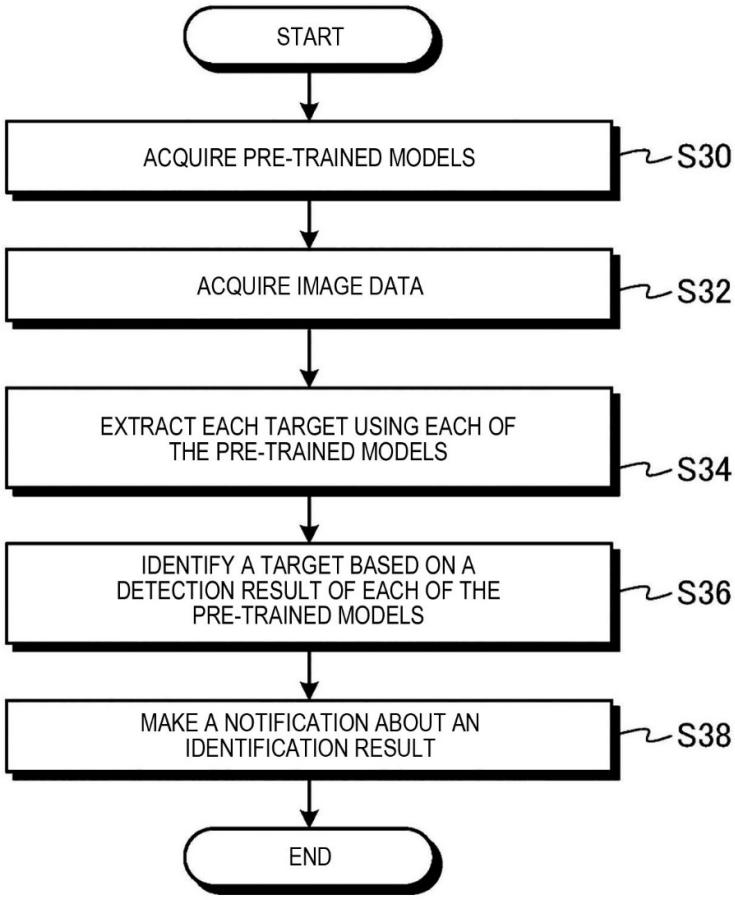

START
ACQUIRE PRE-TRAINED MODELS
S30
ACQUIRE IMAGE DATA
S32
EXTRACT EACH TARGET USING EACH OF THE PRE-TRAINED MODELS
S34
IDENTIFY A TARGET BASED ON A DETECTION RESULT OF EACH OF THE PRE-TRAINED MODELS
S36
MAKE A NOTIFICATION ABOUT AN IDENTIFICATION RESULT
S38
END

FIG. 2

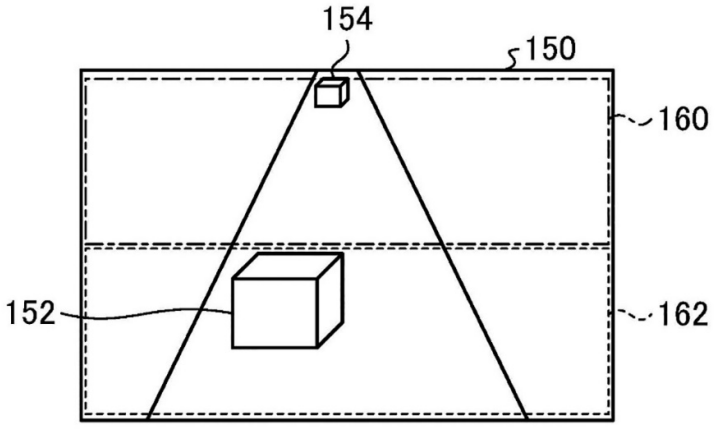


FIG. 3

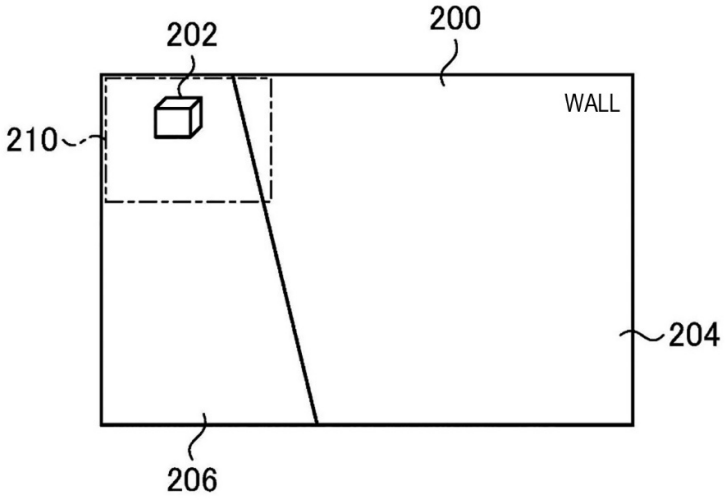


FIG. 4

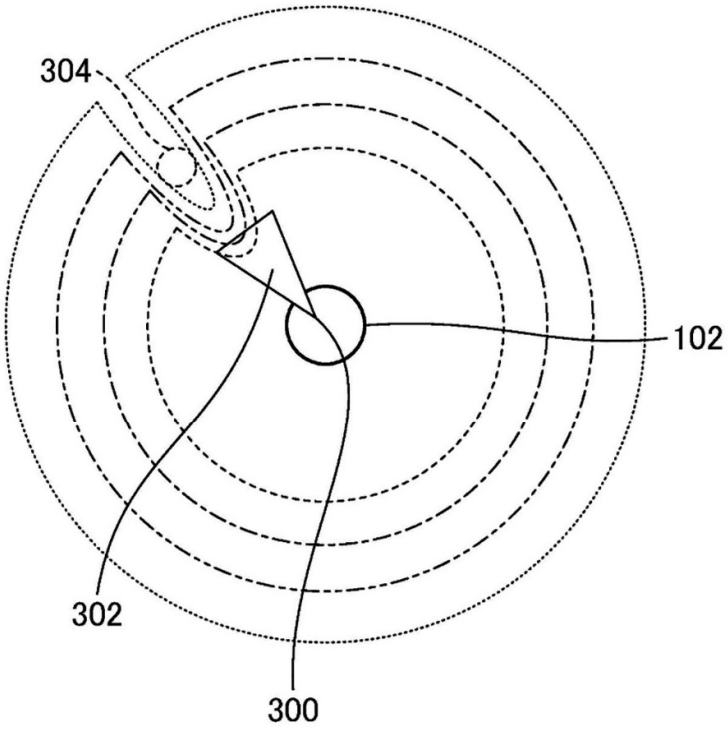


FIG. 5

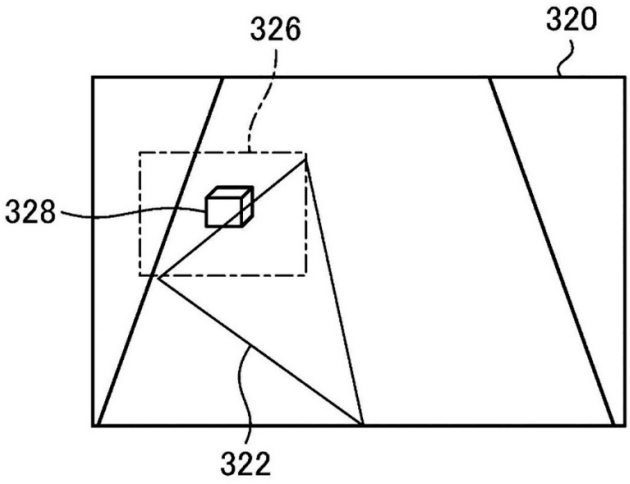


FIG. 6

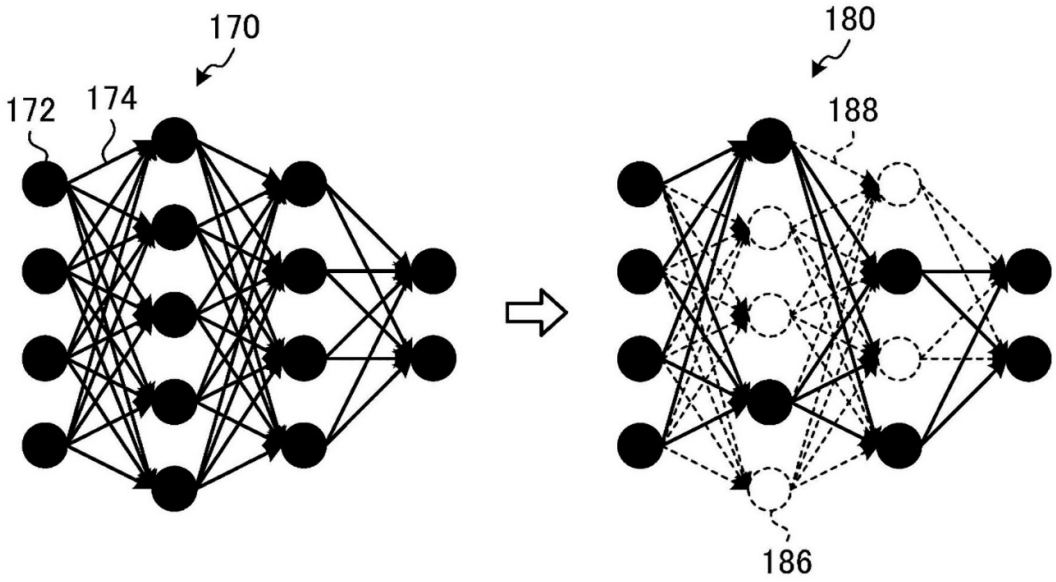


FIG. 7

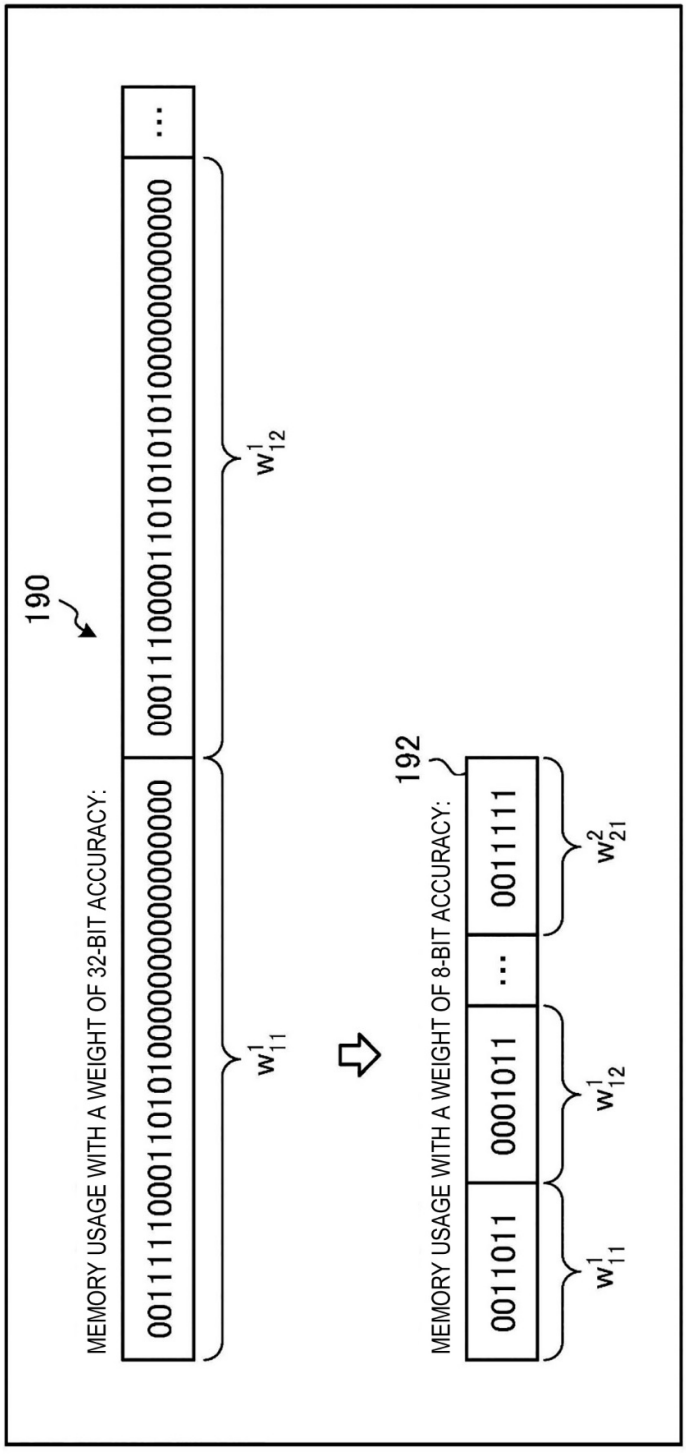

190
MEMORY USAGE WITH A WEIGHT OF 32-BIT ACCURACY:
00111110001101010000000000000000
00011100001101010101000000000000
...
w_{11}^1
w_{12}^1
192
MEMORY USAGE WITH A WEIGHT OF 8-BIT ACCURACY:
0011011
0001011
...
0011111
w_{11}^1
w_{12}^1
w_{21}^2

FIG. 8

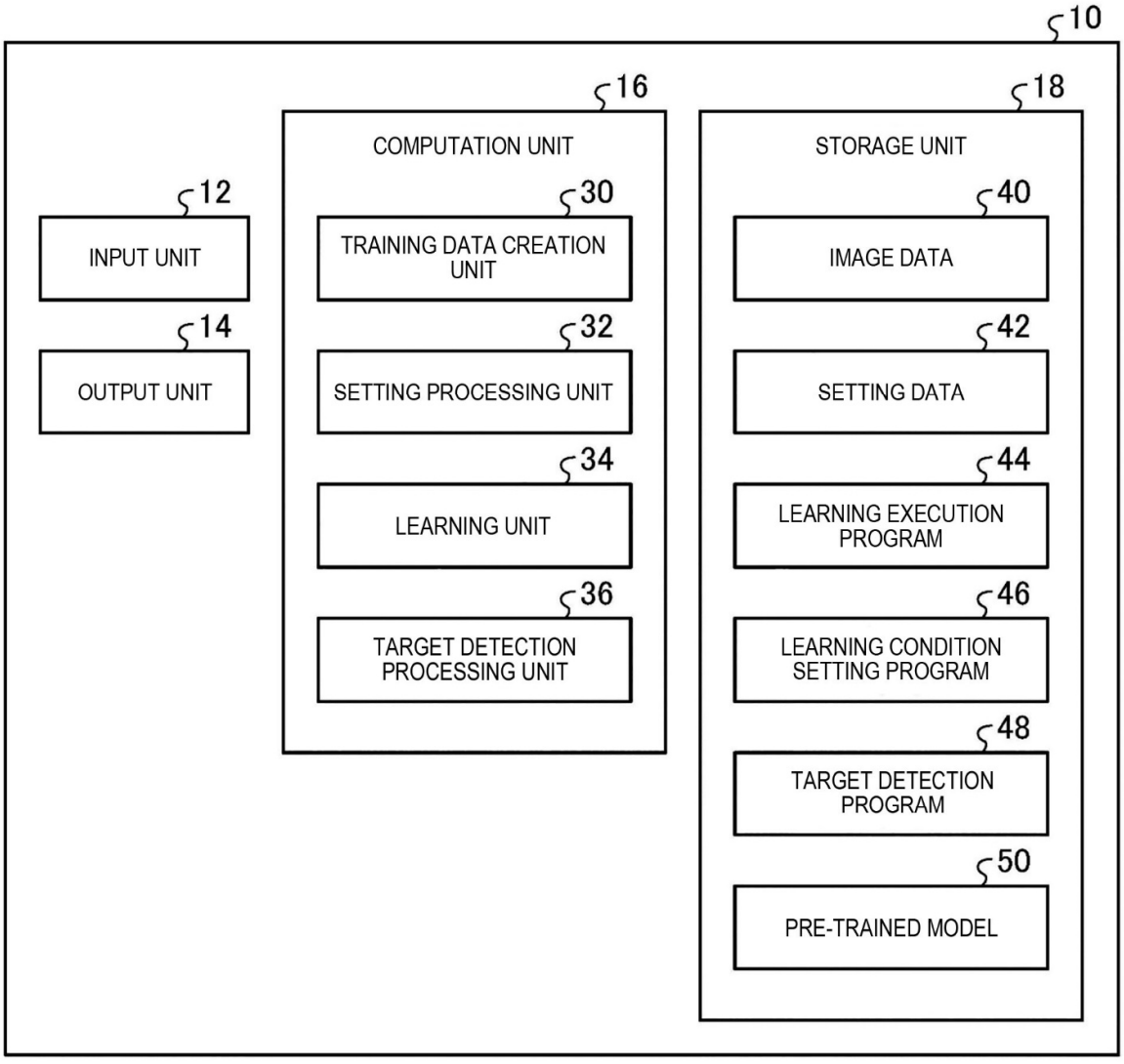

10
16
COMPUTATION UNIT
18
STORAGE UNIT
12
INPUT UNIT
14
OUTPUT UNIT
30
TRAINING DATA CREATION UNIT
32
SETTING PROCESSING UNIT
34
LEARNING UNIT
36
TARGET DETECTION PROCESSING UNIT
40
IMAGE DATA
42
SETTING DATA
44
LEARNING EXECUTION PROGRAM
46
LEARNING CONDITION SETTING PROGRAM
48
TARGET DETECTION PROGRAM
50
PRE-TRAINED MODEL

FIG. 9

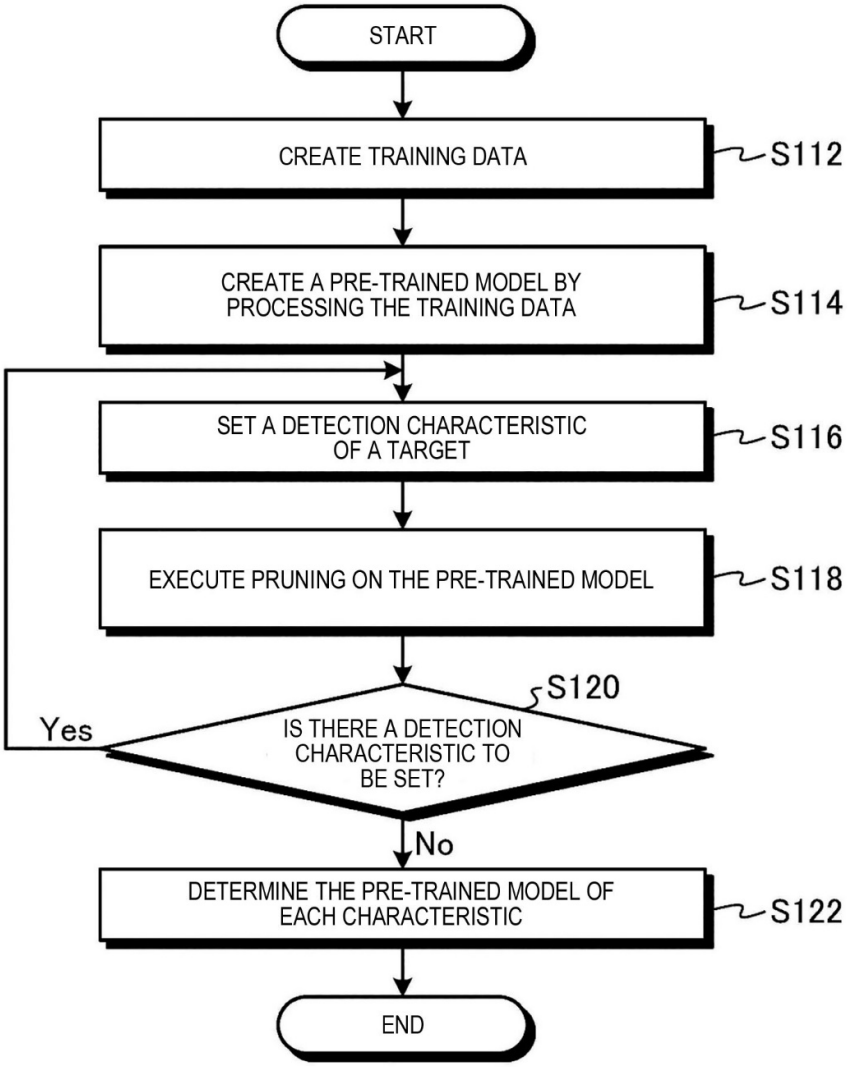

START
CREATE TRAINING DATA
S112
CREATE A PRE-TRAINED MODEL BY PROCESSING THE TRAINING DATA
S114
SET A DETECTION CHARACTERISTIC OF A TARGET
S116
EXECUTE PRUNING ON THE PRE-TRAINED MODEL
S118
S120
IS THERE A DETECTION CHARACTERISTIC TO BE SET?
Yes
No
DETERMINE THE PRE-TRAINED MODEL OF EACH CHARACTERISTIC
S122
END

FIG. 10