

```

1: //checks.c
2:
3: bool ultrasonicDist(){
4:     return (SensorValue[USPORT]-USOFFSET) < BLOCKDIST;
5: }
6:
7: int healthCheck(float &currentdist, float &endpoint, bool didDrive, int &failures,
8:     float drivedist, int &time, TFileHandle &logfile){
9:     int state = 0;
10:    string mesg = "";
11:
12:    if (currentdist >= endpoint){
13:        state = 1;
14:        mesg = "Reached endpoint.";
15:        sendLog(logfile, time, mesg);
16:    }
17:    else if (didDrive){
18:        if (ultrasonicDist()){
19:            state = 5;
20:            mesg = "Ultrasonic triggered";
21:            sendLog(logfile, time, mesg);
22:        }
23:        else {
24:            state = 0;
25:            mesg = "Business as usual";
26:            sendLog(logfile, time, mesg);
27:        }
28:    }
29:    else {
30:        if (failures > MAXFAIL){
31:            didDrive = drive(DRIVEDIST, 0, 1, SPEEDHIGH, currentdist, time, logfile);
32:            if (didDrive) {
33:                mesg = "Backwards driving worked.";
34:                sendLog(logfile, time, mesg);
35:                state = 1;
36:            }
37:            else {
38:                mesg = "Time to tension.";
39:                sendLog(logfile, time, mesg);
40:                state = 10;
41:            }
42:        }
43:        else {
44:            failures++;
45:            mesg = "HC failures now at: ";
46:            sendLog(logfile, time, mesg, failures);
47:        }
48:    }
49:
50:    return state;
51: }
52:

```