```c
 1: //main.c
 2: #include "consts.h"
 3: #include "funcs.h"
 4: #include "startup.c"
 5: #include "tasks.c"
 6: #include "checks.c"
 7: #include "logger.c"
 8:
 9: /*
10: Main function.
11: No returns, no parameters.
12: */
13: task main(){
14:     TFileHandle logfile = prepLog();
15:
16:     initializeSensors();
17:
18:     float endpoint = getUserDistance();
19:     wait1Msec(5000);
20:
21:     float currentdist = 0;
22:     int state = 0, time = 0, pastRotations = 0, failures = 0;
23:     bool go = true, didDrive = false;
24:
25:     string mesg = "Robot initialized. Endpoint is ";
26:     sendLog(logfile, time, mesg, endpoint);
27:
28:     //main loop
29:     while (go) {
30:         time++;
31:         didDrive = drive(DRIVEDIST, 1, 0, SPEEDHIGH, currentdist, time, logfile);
32:         state = healthCheck(currentdist, endpoint, didDrive, failures, DRIVEDIST, time, logfile);
33:
34:         if (state == 10){
35:             tensionWheels(pastRotations, 0);
36:             state = 1;
37:         }
38:         else if (state == 5){
39:             if(clean(currentdist, time, logfile)){
40:                 mesg = "Cleaned blockage.";
41:                 sendLog(logfile, time, mesg);
42:             }
43:             else {
44:                 state = 1;
45:                 mesg = "Failed cleaning.";
46:                 sendLog(logfile, time, mesg);
47:             }
48:         }
49:
50:         if (state == 1){
51:             mesg = "Health check failure";
52:             sendLog(logfile, time, mesg);
53:             go = false;
54:         }
55:     }
56:
57:     escape(currentdist, time, logfile);
58:     shutdown(pastRotations, time, logfile);
59: }
60:
```