```
1: //sensor locations
2:     const tSensors USPORT = S1;
3:     const tSensors ACCPORT = S3;
4:     const tSensors TOUCHPORT = S2;
5:
6: //motor locations
7:     const tMotor FDRIVE = motorA;
8:     const tMotor RDRIVE = motorB;
9:     const tMotor BRUSH = motorC;
10:     const tMotor LDSCREW = motorD;
11:
12: //holds the distance, in cm, driven between health checks
13:     const float DRIVEDIST = 5;
14:
15: //holds the distance from the ultrasonic sensor to the front of the robot
16:     const float USOFFSET = 15;
17:
18: //holds the conversion factor for motor encoder count to distance
19:     const float CONV = 180/(PI*2.75);
20:
21: //speed constants
22:     const int SPEEDRAM = 100;
23:     const int SPEEDHIGH = 50;
24:     const int SPEEDLOW = 50;
25:
26: //minimum accelration to be considered moving
27:     const int MINACCEL = 50;
28:
29: //number of times to attempt cleaning
30:     const int HITS = 5;
31:
32: //distance for something to be considered a blockage
33:     const int BLOCKDIST = 40;
34:
35: //how many times to rotate motor for tensioning
36:     const int LDSCREWROTS = 10 * 360 * 24;
37:
38: //what distance to leave at the end while escaping
39:     const int DISTTOLEAVE = 10;
40:
41: //max number of drive check failures during cleaning phase
42:     const int MAXFAIL = 25;
43:
```