```
1   //define joystick in pins
2   int xpin = ;
3   int ypin = ;
4   int Tpin = ;
5   int zpin = ;
6
7   //define x,y,T,z vars
8   int x,y,T,z;
9
10  //define percent x,y,T vars
11  float xper,yper,Tper
12
13  //define Motors to x,y,T - {1,2,3,4}
14  int Motx[4] = {-1,1,1,-1};
15  int Moty[4] = {-1,-1,1,1};
16  int MotT[4] = {-1,1,-1,1};
17
18  //define motor power array
19  float MotPow[4];
20
21  //reset MotPow
22  MotPow = {0,0,0,0};
23
24  //gets input from joysticks stores in x,y,T,z
25  //corrects for 0-1023 and makes it -511 to 512
26  x=(analogRead(xpin)+1)-512;
27  y=(analogRead(ypin)+1)-512;
28  T=(analogRead(Tpin)+1)-512;
29  z=(analogRead(zpin)+1)-512;
30
31  //gets percentage of power for x,y,T
32  xper = x/512.0;
33  yper = y/512.0;
34  Tper = T/512.0;
35
36  //find power for each motor based on x,y,T inputs
37  for(int i=0; i<=3; i++) {
38    MotPow[i] = ((xper*Motx[i])+(yper*Moty[i])+(Tper*MotT[i]))/3.0;
39  }
40
41  //direct mapping of z
42  MotPow[4] = z;
```