```
1  //
2  //
3  //
4
5  #include "PID.h"
6
7
8  void PIDClass::init_PID()
9  {
10
11 }
12
13 float PIDClass::update_PID(float real, float desired)
14 {
15     Error = desired - real;
16
17     P_Error = Error;
18     I_Error = I_Error + Error;
19     D_Error = Error - Last_Error;
20
21     Output = P_Error*kP;
22     Output += I_Error*kI;
23     Output += D_Error*kD;
24
25     //Delta_Output = Output - Last_Output;
26
27     //Delta_Output */
28
29     Last_Error = Error;
30     Last_Output = Output;
31
32     return Output;
33 }
34
35 void PIDClass::Set_Constants(float KP, float KI, float KD)
36 {
37     kP = KP;
38     kI = KI;
39     kD = KD;
40 }
41
42
```