Calculating Sidereal time (on an Arduino)

double M,Y,D,MN,H,S;  
double A,B,C,E,F;

//fill integers with data from real time clock, or other source  
M = (int) month;  
Y = (int) year+2000;  
D = (int) dayOfMonth;  
MN = (int) minute;  
H = (int) hour;  
S = (int) second;

if (M<3) {M+=12; Y-=1;}

A = (long)Y/100;  
B = (long)A/4;  
C = (long)2-A+B;  
E = (long)(365.25\*(Y+4716));  
F = (long)(30.6001\*(M+1));  
CurrentJDN = C+D+E+F-1524.5;

//calculate terms required for LST calculation and calculate GMST using an approximation  
Current\_d = CurrentJDN - 2451545.0;  
Current\_T = Current\_d / 36525;  
Term2=0.06570982441908\*Current\_d;

HourLastUpdatedJDN = hour;  
DayLastUpdatedJDN = dayOfMonth;

H = H + ((double)MN/60) + ((double)S/3600);

float GMST;  
float Term3;

Term3=0.00273790935\*H;  
Term3+=H;  
GMST = Term1 + Term2 + Term3;

//add on longitude to get LST  
LST = GMST + location->GetLong\_over15;  
  
//reduce it to 24 format  
int LSTint;  
LSTint = (int)LST;  
LSTint/=24;  
LST = LST - (double) LSTint \* 24;