


```

////////////////////////////////////
//////////////////////////////////// General purpose function to convert input temperature //////////////////////////////////
////////////////////////////////////
/*
float incon(int temp_adc, int type, int bypass, int mode)
Read the integer input from the ADC (10 bits, 0-1023) and convert to floating
point real dgrC
Select transmitter type:
  "0" = TMP36: -40 to +125 dgrC as used in Purix prototypes
  "1" = TMP35:
  "2" = TMP37:
  "3" = NTC, maybe later versions
Select conversion mode:
  "0" = Normal. No action
  "1" = Force to 0 dgrC
  "2" = Force to 100 dgrC
  "3" = Force to "bypass" value
*/

float incon(int temp_adc, int type, int bypass, int mode)
{
  float var;
  switch (type) {
    case 0: //TMP36
      var = (float(temp_adc)-200)/4;
      break;
    case 1: //TMP35
      var = float(temp_adc)/4;
      break;
    case 2: //TMP37
      var = float(temp_adc)/8;
      break;
    case 3: //NTC
      //var = ;
      break;
    default:
      var = 0;
      break;
  }
  switch (mode) {
    case 0: //Normal
      //no action
      break;
    case 1: //Force to 0
      var = 0;
      break;
    case 2: //Force to 100
      var = 100;
      break;
    case 3: //Force to "bypass" value
      var = bypass;
      break;
    default:
      //no action
      break;
  }
  return var;
}

```