Temperature

The code first asks the user to input a value for temperature in Celsius. The temperature has to be within a range 25-35 as it’s an ideal temperature for yield. If the temperature inputted is outside the range an error message is given out and the user is asked again to give a temperature.

The microprocessor then reads the value from the thermistor sensor. If the value is less than the set temperature, then a signal is sent to the heater to switch on. If the temperature value from the sensor is greater than the set value, then a signal is sent to the heater to switch of.

Since the sensor sends data in analogue (values range from 0 -1024) there is a function that converts the analogue value into Celsius. The conversion formula is derived from the data sheet.