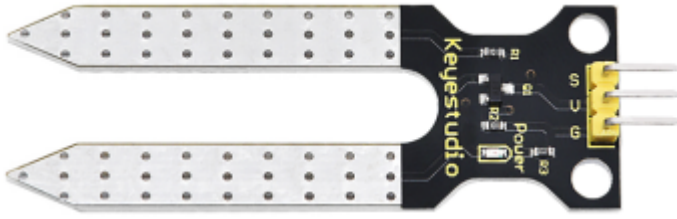


Project 13 Soil Humidity Detector



1. Description

This sensor detects the soil humidity.

If the soil is lack of water, the analog value output by the sensor will decrease; otherwise, the value will increase. Virtually, It is applied to prevent your household plants from being destitute of water. The soil humidity sensor has two probes. When inserted into the soil, it will get resistance value by reading the current changes between the two probes and converting resistance value into moisture content. The higher the moisture (less resistance) is, the higher the conductivity will be. The surface of the sensor has undergone metallization process to prolong its service life. You may insert it into the soil and then use the AD converter to read the value. With the help of this sensor, the plant can remind of you: I need water.

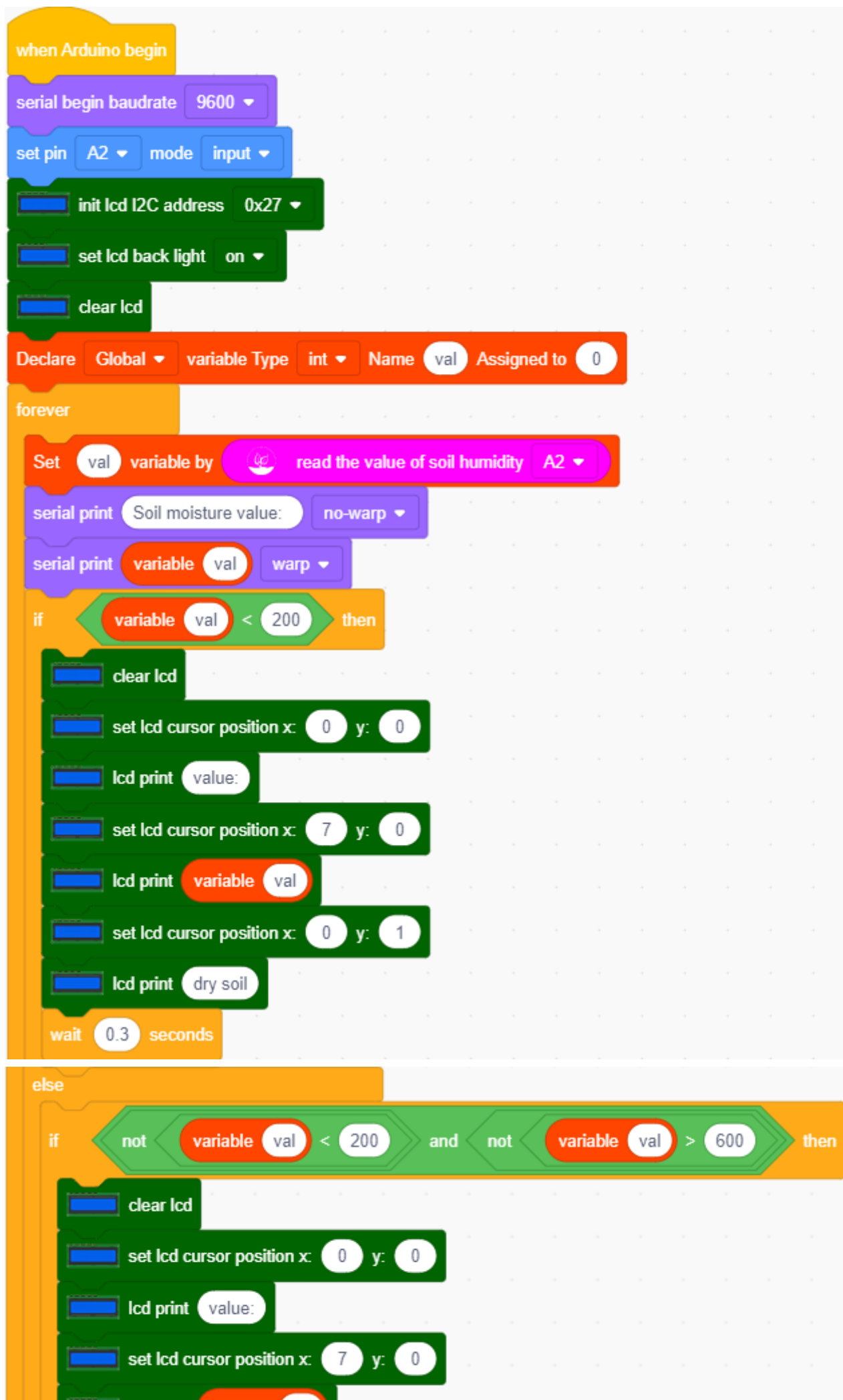
It also comes with 2 positioning holes for installing on other devices.

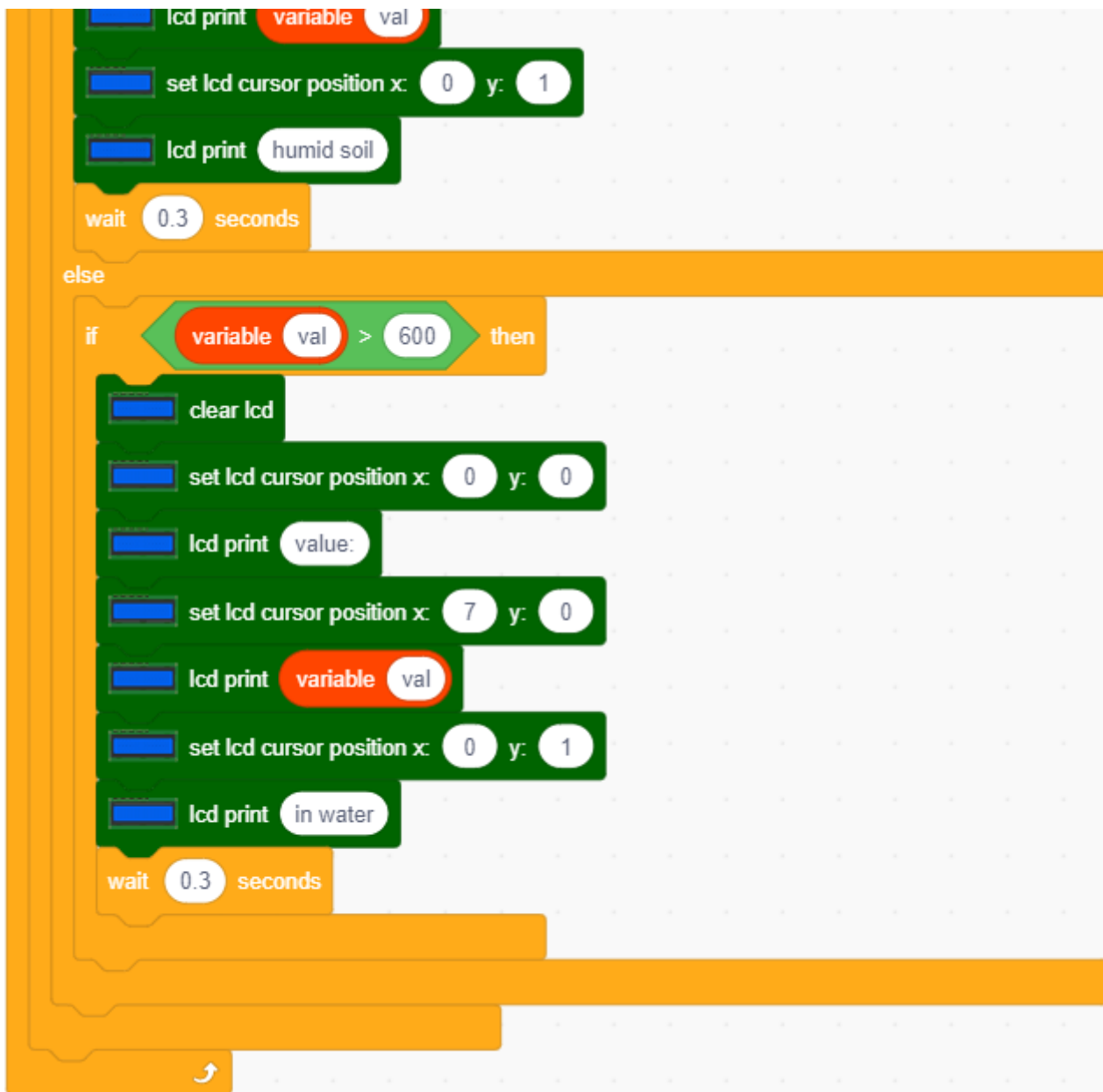
2. Parameters

- Working voltage: 3.3V-5V
- Working current: $\leq 20\text{mA}$
- Output Voltage: 0 ~ 2.3V(When the sensor is totally immersed in water, the voltage will be 2.3V)
- the higher humidity is, the higher the output voltage will be.
- Sensor type: Analog output
- Interface definition: S - Signal, G - GND, V - VCC


3. Needed Components

PLUS control board*1	Expansion board*1	Humidity sensor*1	1602 LCD display*1	USB cable*1	4Pin F-F Dupont wire*1	3Pin F-F Dupont wire*1





6. Test Result

After uploading code, click  on the serial port to set baud rate to 9600. Insert the soil humidity sensor into the soil. The greater the humidity is, the larger the value(0-1023) will be. Meanwhile, the

1602LCD will display the corresponding value.

