

Description (See product pages for documentation)	Price (USD)	Total Number Required	Source (2)	
A suitable Linux or Windows computer is assumed to exist and to have at least five independent, available, and powered USB ports. (4)				
Basic Essentials - Grassroots Network				
Arduino MKR WAN 1310 Baseboard , with antenna	46.00	3	Arduino Official Store	138.00
Micro USB Cable (USB A / USB B)	6.90	3	Arduino Official Store	20.70
Male-Male jumper wires	4.80	1	Arduino Official Store	4.80
(1) Total Cost	163.50			
Optional Accessories				
Stand-alone magnifying light	40.00	1	Amazon	40.00
(3) Soil-Moisture Sensor	45.00	1	Vegetronix	45.00
(5) Heatsinks that can be cut to size	7.49	1	Amazon	7.49
Total if all purchased:	92.49			
For Exploring Image Transmission				
Arduino Uno R3	28.00	1	Amazon	28.00
USB 2.0 Cable	7.00	1	Amazon	7.00
RaspberryPi single-board computer	129.00	1	Amazon	129.00
Ethernet Cable	7.00	1	Amazon	7.00
Micro SD Card	8.00	1	Amazon	8.00
USB Micro SD Card Adaptor	9.00	1	Amazon	9.00
PixyCam + Connector Cable	70.00	1	Amazon	70.00
Total if all purchased:	258.00			

(1) Prices are at time of writing. They do not include shipping or taxes.
"Cost" refers to the sum of individual prices times the number required.

(2) "Arduino Official Store" refers to Arduino's global network.
See the bottom-right of the page to select your region.

(3) This is an industrial-grade sensor that happened to be already on hand. For brief indoor experiments, cheaper sensors will do. For instance: <https://amzn.to/40DeuyC>.
One has to study and understand the new sensor, and correctly integrate it relative to the host device and the soil in question.

(4) My personal experience is that a USB port extender, even powered, is insufficient to meet this criterial. Rather, the ports need to be internal to the PC and independent of each other. To be sure, this adds cost to the PC.

(5) Take great care with good safety when cutting these.
The result is crude but appears to work well.
If you find an alternative, please post an issue.