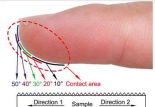

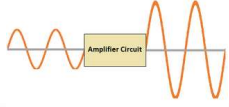
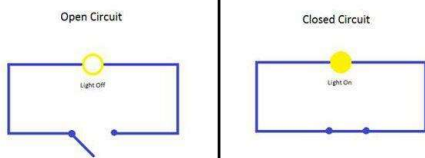
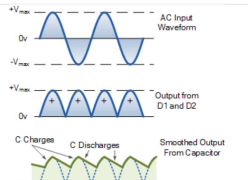
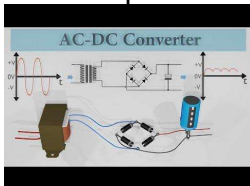
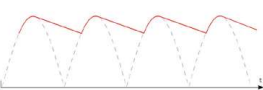
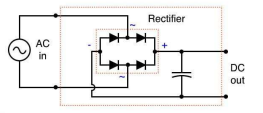

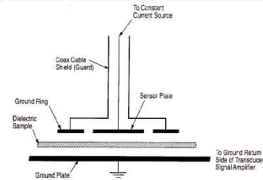
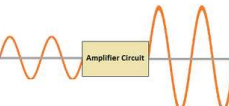
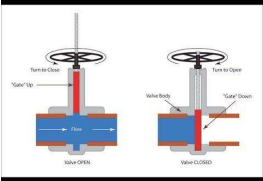
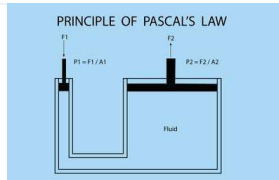
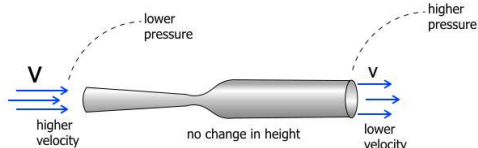
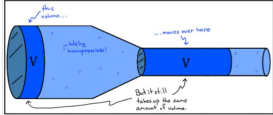
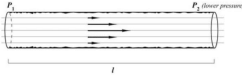
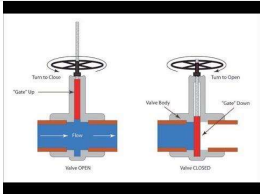
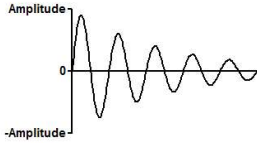
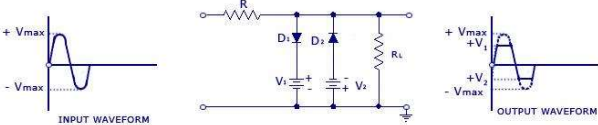


Conceptual Design

Sub-fun Number.	Subfunctions	Physical effect	Working principle
1	Import hand		$r = \sqrt{(f^2 + n^2)}$
2	Toggle operation		an electric switch is a device that interrupts the electron flow in a circuit. When the switch is turned off, the circuit breaks and the power flow is interrupted.
3	Amplify signal		Amplification through opamp, MOSFET, BJT
4	Export signal	Transmission from one point to be received at another	UART, USB, USART, and I2C
5	Import energy	Conductance	
6	Allow Energy	Initiate the flow of energy	
7	Rectify Energy		
8	Filter Energy		
9	Export energy	Transmission from one point to be received at another	
10	Export soil moisture sensor		Physical contact
11	Collect soil moisture reading	Change in sensing element which can be detected	
12	Compute soil moisture level	Application of relevant equations to get the moisture level	Generating a voltage proportional to the dielectric permittivity
13	Export current soil moisture level	Signal transmission using suitable communication protocols	UART, USB, USART, I2C
14	Amplify start signal		Amplification of signals to the required magnitude using various combination of transistors.
15	Export START Signal	Signal transmission using suitable communication protocols	UART, USB, USART, I2C
16	Import Water		
17	Collect water	Increasing the volume of water in the system	Steady flow of Newtonian liquids
18	Control water	Regulating the flow rate of water	

Conceptual Design

19	Transport water		<p>Physics • FLUID MECHANICS • 101 • The Flow of a Real Fluid [197]</p> <p>Poiseuille's Law</p> $Q = \frac{\Delta P \pi r^4}{8 \eta l}$ <p>Q = volume flow ΔP = change in pressure r = pipe or vessel radius η = viscosity l = pipe or vessel length</p> 
20	Export water		Steady flow of Newtonian liquids, Bernoulli's principle, Archimedes Principle
21	Accept signal	Signal Collection using suitable communication protocols	UART, USB, USART, and I2C
22	Reduce signal		<p>COMBINATION CLIPPER</p>  <p>INPUT WAVEFORM</p> <p>OUTPUT WAVEFORM</p> <p>www.CircuitsToday.com</p>
23	Export user signal	Signal transmission using suitable communication protocols	UART, USB, USART, and I2C