

Timer Tap

Purpose: In this time of pandemic it's very crucial to wash our hands several times with soap as it kills germs in our hands. We need to wash our hands for 20 seconds for effective killing of germs, but it's difficult to keep track of time every time. Therefore we thought to build a tap which waits for 25 seconds before flow out the water so that user can deal with soap till then.

Project Description:

The user has to press the ON button so that water starts flowing out of the tap for a small duration of time to just to wet the hands. Then the user can apply soap/handwash liquid and scrub the hands until water flows out i.e water flows out 25 sec after the small duration water stops. After 25 seconds when water flows out of the tap user can rinse his/her hands thoroughly. Then the user can turn off the tap by pressing the OFF button. Having two different buttons to turn on and off the tap will avoid pressing the same button before and after cleaning.

User can press 'hurry on/off button' if he wants normal tap functionally. He can turn off the tap by pressing the same button.

Electronic Components Used:

Arduino Uno, Realy module, Water solenoid valve (230v AC) (NC), 3 pushbuttons, 3 resistors, connecting wires, Extension cord for power supply.

Circuit Diagram:

