

ELIKWU, EMMANUEL  
MECHANICAL ENGINEERING  
18/ENG06/01  
ENG 224 Assignment

\* Conceptualization: Automation of Irrigation System, a software to control and regulate water in the irrigation system.

\* Specification:

~~From~~ Thermometer (to monitor temperature)  
Water Supply Network  
Alarm System  
Moisture Sensor

\* Design:

1 Algorithm:

Step 1: Start

Step 2: Boot system

Step 3: Input Passcode

Step 4: Determine temperature of soil

Step 5: Determine the moisture content of the soil

Step 6: Set time interval for water supply to maintain regulator  
Soil moisture

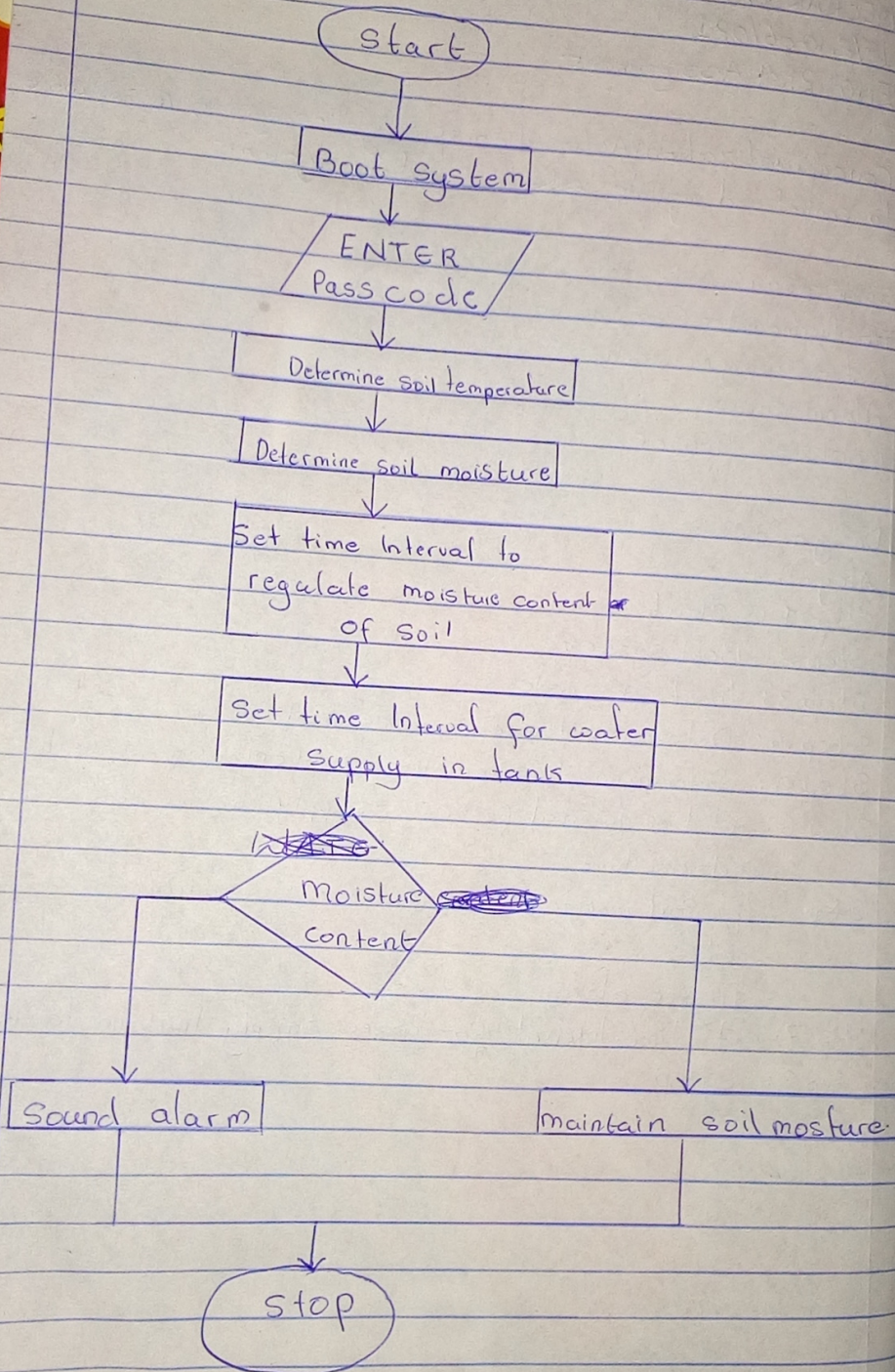
~~Step~~ If Soil moisture is appropriate maintain  
Else

Trigger alarm

Step 7: Set time interval for water supply into the tank

Step 8: Stop

## 2 Flowchart



- \* Program is written in C++
- \* Testing and debugging. A test run is carried out to identify issues with programming and bugs are removed.
- \* Hardware
  - Irrigation machine, tanks, pipes, sprinklers, thermometers
- \* Software
  - CUI
  - dial box
  - timer
  - Irrigation control software
  - user interface
  - Security system software

