## **GROUP:4**

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## **Green house control (GHC)**

(LDR (light), LED, SHT11" temperature humidity", dc motor(fan), servomotor(cover), stepper motor (water pump))

GHC\_1: system have light sensor (LDR) which obtained from light intensity.

GHC\_2: LDR should be compared with light intensity range (LRH, LRL).

GHC\_3: if LDR is less than LRL, LED will be ON, if LDR greater than LRL, LED will be off.

GHC\_4: if LDR is greater than LRH, servo will be at angle '90' (cover). Otherwise, servo will be at angle '0'.

GHC\_5: LCD display LDR value and the state of LED and servo.

GHC\_6: system have current temperature (c) which obtained from temperature sensor (SHT11).

GHC\_7: (c) will compared with configurable threshold temperature (Tt).

GHC\_8: if (c) is greater than (Tt) DC motor will be ON (fan), otherwise DC motor will be off(fan).

GHC\_9: LCD display (c) value and state of DC motor(fan).

GHC\_10: system have current humidity (h) which obtained from (SHT11) sensor.

GHC\_11:(h) will compared with configurable threshold humidity (Th).

GHC\_12: if (h) is less than (Th) stepper motor will be ON (water pump), otherwise stepper motor will be off (pump).

GHC\_13: LCD display (h) value and state of stepper motor (water pump)