

Technocrats Electrical Vacation Tasks

Set 1

- Multimeter different modes and whole functionality
- Different types of switches and connectors.
- Step up and Step Down converters and substitutes.
- Express PCB or Eagle PCB-Design your previous PBL circuit in PCB.

Set 2

- Motor Drivers operation and coding with pwm (for different drives).
- Operation of servo and stepper motors and coding.
- Theory on working of different types of encoders.

Set 3

- Analog to Digital converters significance
- Theory on working of inductive and capacitive proximity sensors.
- Types of communication protocols
 - 1) Sensor Interfacing. (Ultrasonic Sensor)
 - 2) between two microcontrollers. (UART and I2C).
 - 3) Ps2 controller interfacing.
 - 4) Get well versed in serial monitor Communication.
 - 5) Basic wireless communication protocols.

Set 4

- Mosfet as a switch and basics of pneumatic solenoids. Research on Any other component that can be used in place of MOSFETs.
- Proteus Simulations
- Pull down and pull up resistors.

Set 5

- Various line following techniques.
- Operations of TCS-3200, MPU-6050, HC-05, load cell and sharp IR
- Write algorithm for developing your own levelling system using MPU-6050

Reports should be mailed to technocrats.electrical@gmail.com

