DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

<u>STANDARD OPERATING PROCEDURE</u>

Name of the Lab./facility	Siemens DCS Comos Integrated Engineering Lab
Name of the equipment	Robot Arm
Purpose	To provide experimental verification for students about the operation of Robot
Scope	Students develop an understanding of the representation of an industrial robot's manipulator pose, kinematics and control
Responsibility	Faculty i/c of the facility, HOD/EEE

STANDARD OPERATING PROCEDURE

- Please right-click the DobotStudio icon and choose to run the software as administrator.
- There are eight modules on the main software interface:
  - ✓ **Teaching & Playback:** A system to teach the Dobot how to move. It enables the Dobot to accomplish recorded movements by manual control.
  - ✓ **Write & Draw**: Controls the Dobot to write, draw or laser engrave.
  - ✓ **DobotBlockly :** Teaches basic programming through a puzzle interface. Intuitive and easy to understand.
  - ✓ **Script:** Edit scripting language to control the Dobot.
  - ✓ **LeapMotion:** Control the Dobot by gesture.
- Choose the module and write the Program as per requirement
- Program shall be verified by the course instructor

PRECAUTIONS TO BE FOLLOWED

- Power On: Please align the Dobot into the "neutral position" by making a 45° angle between the forearm and rear arm (shown below), press the power button, and the stepper motors will lock. After about 5 seconds, there will be a short sound. If the status light switches from orange to green, the Dobot is ready to use.

- If the Dobot becomes unaligned with the computer, press the Reset button behind the controller to recalibrate. The Dobot will automatically disconnect with the computer and reset. Then you can reconnect it..
- Please turn off the Dobot completely first before plugging or unplugging external modules, such as Bluetooth, WIFI, Stick controller, Infrared sensor, Color sensor etc...Not powering down the Dobot before doing so may damage or break your Dobot
- Power Off: If the status light at the bottom right of the Dobot is green, press on the power button to turn off Dobot. In this process, Dobot will move slowly to the "resting" position.

RECORD TO BE MAINTAINED

- Laboratory Manual containing the experiments that can be performed with the equipment
- Maintenance Record

Prepared by   HOD   Principal