ECE 100 Laboratory Manuals

Illinois Institute of Technology ECE Dept

August 24, 2021

Contents

0.1 Preface

Welcome to the ECE 100 - Intro to Profession - Laboratory In this laboratory, students will utilize Arduinos, sensors, code, and other items to build an assortment of robots. Students will collaborate in groups and participate in a variety of competetions between groups from all lab sections

Laboratory 1 - Introduction

1.1   Prelab 1

Due Date Week of August 30th-September 3rd, 2021 in lab section. Submit report electronically before start of Lab via Blackboard (check assignments folder)

Subject Section #, FirstName LastName

Body "I have read and will comply with the ECE 100 Course policies"

Short Answer Questions

1. What is a microprocessor? What is a microcontroller?
2. What is the difference between a microprocessor and a microcontroller?
3. Is an Arduino a microprocessor or microcontroller?

Additional Task Please complete Google Form attached at link below. Attach a screenshot of the "Response Sent" screen to verify completion. Google Form Link

Additional Task Bring Robot Kit to your lab section

1.2   Post-Laboratory Report 1

Due Date Week of September 6th-September 10th, 2021 in lab section. Submit report electronically before start of Lab via Blackboard (check assignments folder)

Contents No report necessary. Meet with team members and brainstorm ideas for next lab session

Laboratory 2 - Initial Brainstorming

2.1   Prelab 2

Due Date Week of September 6th-September 10th, 2021 in lab section. Submit report electronically before start of Lab via Blackboard (check assignments folder)

Subject Section #, FirstName LastName

Body "I have read and will comply with the ECE 100 Course policies"

Short Answer Questions
1. What is a microprocessor? What is a microcontroller?
2. What is the difference between a microprocessor and a microcontroller?
3. Is an Arduino a microprocessor or microcontroller?

Additional Task Please complete Google Form attached at link below. Attach a screenshot of the "Response Sent" screen to verify completion. Google Form Link

Additional Task Bring Robot Kit to your lab section

2.2   Post-Laboratory Report

Due Date Week of September 6th-September 10th, 2021 in lab section. Submit report electronically before start of Lab via Blackboard (check assignments folder)

Contents No report necessary. Meet with team members and brainstorm ideas for next lab session