



Study Guide for Week #2

Module 2: Physical Platforms and Elements

Material Outline

- (1) Physical Systems Description and Classification
- (2) Layers in Physical Systems
- (3) CPS Layer Components
- (4) CPS Layer Threats
- (5) CPS Security Countermeasures

Provided Documents

Documents	Description
Week2-WatchMEfirst	Video explaining the goals of this week
Week2-StudyGuide.pdf	The guiding documents for the materials covered in this week, student work, and learning outcomes of this week.
Week2-Slides.ppt	PowerPoint slides regarding physical platforms and elements
Week2-Lecture	Video Lecture
Week2-PaperReading	Paper Reading for this week: Cyber-Physical Systems Security: Limitations, issues and future trends
Week2-Resources -> Video: What is an actuator?	A very interesting video about what is an actuator. Please WATCH because it contains examples in real-life scenarios.
Week2-Resources -> Video:	Explanation about what is a sensor and the

Documents	Description
What is a sensor?	different types of sensors available.
Week2-Resources -> Video: Sensors used in industry	A video regarding the different types of sensors used in industry. Please watch as you will learn about different types of devices used for different purposes.
Week2-Checklist	A checklist for your reference

Student Assignments

- Digest PowerPoint slides
- Watch the Lecture (or attend the in-person lecture)
- Read the Week 1 Material (All readings and papers provided)
- Watch explicative videos
- Complete Checkmark #1

Learning Goals

This module is part of the learning outcomes

- (1) Describe the main components and layers of physical systems, their vulnerabilities, and countermeasures
- (2) Perform tests with physical systems simulators to gather and transmit data.