# 🛠️ MEC 427 Advanced Sensors and Actuators Challenges 1-5

## 🗓️ Date & Time

- **Report Date:** 10-11-2025
- **Time Block:** 10-06 – 10-10
- **Time Spent This Session:** 5 hours
- **Cumulative Time on Project:** 5 hours

## 📂 Project Overview

- **Project Title:** Challenge Development Plans
- **Project Objective:** Create Initial Development Plans
- **Current Phase:** Sketching Phase

## 🔧 Task / Activity Details

- **Module / Subsystem:** Development Plan
- **Specific Task or Activity:** Documentation
- **Time Spent on This Task:** 2 hours
- **% of Total Time:** 40%
- **Resources Used:**
    - **Hardware:**
    - **Software:**
    - **Tools:** VScode, Markdown, Copilot, Grok
    - **Documentation:** Development Plan (First Version)

- **Module / Subsystem:** Hourly Report Template
- **Specific Task or Activity:** Documentation
- **Time Spent on This Task:** 1 hours
- **% of Total Time:** 20%
- **Resources Used:**
    - **Hardware:**
    - **Software:**
    - **Tools:** VScode, Markdown, Copilot, Grok
    - **Documentation:** Hourly Report Template

**Module / Subsystem:** Development Plan

- **Specific Task or Activity:** Met with Carl for advice on development plan
- **Time Spent on This Task:** 1 hours
- **% of Total Time:** 20%

- **Resources Used:**
  - **Hardware:**
  - **Software:**
  - **Tools:**
  - **Documentation:**

**Specific Task or Activity:** Research on fluid sensors and systems

- **Time Spent on This Task:** 1 hours
- **% of Total Time:** 20%

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# 🗂 Progress Tracking

- **Task/Module Completion Status:**
- **Project Completion Status:**
- **Milestones Reached:** Development plan started
- **Blockers or Issues:**
- **Next Steps / Planned Actions:** Refine and expand development plan once assignment details are provided.

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# 📦 Results & Deliverables

- **What Was Achieved:** First Draft of development plan.
- **Artifacts Created:** Development Plan v.1, Hourly Report Template
- **Validation / Testing Outcomes:**
- **Changes Made to Design or Approach:** Using Markdown for documentation.

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# 👥 Team & Ownership

- **Persons Involved:**
  - Carl Wenngren – Advice
- **Hand-offs or Dependencies:**
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# 📑 Narrative & Observations

- **Narrative Summary:**
- Started out by seeking advice from Carl on creating my development plan and clarifying class structure. Also got some tips for project management and engineering. Found out that I may have deleted my OneDrive files during my virtual machine experimentation, So I decided to create new templates and documents in Markdown format as I find it cooperates with AI. Utilized AI tools like Copilot and Grok to help draft the development plan and report template. Spent some time researching fluid sensors and systems. Felt a bit inspired by the different applications available.
- **Technical Notes:**

- I will be using an external drive to back up my files going forward.
- **Lessons Learned / Insights:**
- Learning a lot about different fluid sensors and applications.
- **Emotional/Workflow Reflections (optional):**
- Each project starts with a 'hump' to get over. Starting with the planning/sketching phase is a good foundation.

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