

## Individual Work Log

<b>PROJECT NAME:</b>	OBD-II Based Predictive Maintenance System		
<b>STUDENT NAME:</b>	Dang Khoa Le		
<b>STUDENT ID:</b>	103844421	<b>WEEK # (&amp; dates covered):</b>	#8

TASKS	STATUS	TIME SPENT	ACTION ITEM/NOTE
<b>Task</b>	<b>Status</b>	<b>Time Spent</b>	<b>Action Item/Note</b>
Collected OBD-II device from supervisor (Ali)	Completed	0.5 hours	Picked up ELM327 Wi-Fi adapter from Ali on Monday (April 29)
Coordination with vehicle-owning team member (Dale) and plan for data collection + specifications	Completed	0.5 hours	Scheduled device handoff; confirmed hardware compatibility and vehicle readiness, which app to be used
Drafted updated weekly timeline and contingency plan	Completed	1 hours	Re-adjusted project plan to reflect delayed data collection, shared with client
Researched OBD-II device installation methods (setup + connect)	Completed	1 hour	Validated multiple install tutorials and visual guides (YouTube, GIFs) for dashboard presentation
Technical breakdown of 16-pin ELM327 adapter	Completed	1 hours	Created pin function table and usage scenarios with protocol mapping (CAN, ISO 9141, J1850)
Investigated expected data structure and log format	Completed	1 hours	Analysed sample line-plot logs, field types, and sensor frequency strategies for setup readiness
Prepared Powerpoint slides and summary for client presentation	Completed	1 hours	Created 8-slide structure with visuals for Thursday meeting
Supported discussion planning and roadmap projection	Completed	1 hour	Added key discussion points (sampling rate, GPS feasibility, cleaning method) to team presentation
<b>TOTAL WEEKLY TIME SPENT</b>		<b>7 hours</b>	

TASKS PLANNED FOR NEXT WEEK	EXPECTED COMPLETION
Start data collection	Week 8 (late) + Week 9
Export and review raw CSV log structure	Week 9
Begin tagging logs with metadata (trip ID, statistics, timeframe)	Week 9-10
Physical data cleaning start	Week 9

### Summary/weekly reflection for Week 7:

- **Key Tasks Done:**

This week focused on preparing for real-world data collection after receiving the OBD-II device. Installation readiness, pin layout research, and log format familiarization were prioritized. A visual-rich presentation was prepared to show progress and technical breakdown to the client. Additionally, contingency planning was conducted to ensure smooth data logging operations starting Friday.

- **Key Learning:**

Hardware setup and timeline synchronization are crucial for embedded systems data projects. Understanding pin usage and protocol compatibility (e.g., CAN, K-Line) ahead of time reduces integration time. Also, interpreting expected log formats helps align model-ready fields and cleaning pipelines proactively.

- **Literature/Resources Reviewed:**

- ELM327 Pinout and Protocol Mapping Docs (OBD-II J1962 Standard)
- Sample OBD-II logging visualizations (CANedge2 Audi A4 example)
- GIF tutorials and install instructions from KonnectGPS
- Real-time PID structure documentation (python-OBD, Torque Pro)

- **Issues Faced:**

The main issue this week was the delayed handoff of the OBD-II device, which pushed real-world data collection to the end of the week. However, this delay was mitigated through schedule adjustment and proactive planning, ensuring that the device setup will begin promptly.