| **Lesson Plan** | | | |
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| **Name:** | Alastair Mead | | |
| **Job Title:** | Autonomous Vehicle Safety Operator (AVSO) | | |

| **Date:** | 11/03/24 | | |
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| **Aim:**  *(Overall goal?)* | Complete all Learning Outcomes required for **Unit 1**:   * LO1 Drive an electric vehicle safely. * LO2 Prepare and drive an electric vehicle safely to a high standard. * LO3 Prepare and drive an autonomous vehicle in data collection. | | |
| **Objective:**  *(Steps taken to reach that goal?)* | 1. Undergo a high standard driving test to show your professionalism and ability to drive to the standards required here at Wayve 2. Be shown how to conduct a BUI of a vehicle and ensure its roadworthiness before heading out onto the road. 3. You will use your understanding of the systems to set up, and safely conduct a DC run to our closed road test site. | | |
| **Session:**  *(What are you planning to do? What resources did you use?)* | Today you will be working towards successful completion of LO3.  You will learn how to correctly set up the vehicle in Data Collection mode and plot a route to the test site.  You will follow the sat nav correctly and ensure a high standard of driving is maintained throughout your time on the road | | |
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| **Trainer**  **Feedback:**  *(What Went Well & Areas Of Improvement)* | Alastair showed great competence in Unit 1 today. He successfully demonstrated the required standard of driving needed to operate in DC. We discussed some successful amber light situations where we needed to continue and not break heavy, so as not to teach the model to be breaking sharp. Alastair showed good understanding of motorway driving, keeping in the left lane at all times where possible and overtaking comfortably and within plenty of time and space. With great knowledge of setting up a Data Collection run and high standard of driving, overall a pass in this unit was given. | | |
| **Learner Self-Reflection:** | I’m confident in my ability to drive to a high standard within the Highway Code and follow “Best Practices” at all times. | | |

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| **Date:** | 11/03/24 | | | |
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| **Aim:**  *(Overall goal?)* | Complete all Learning Outcomes required for **Unit 2**: LO1 - Prepare an autonomous vehicle for safe operation in a Closed Road Testing LO2 Operate an autonomous vehicle in a Closed Road Testing environment | | | |
| **Objective:**  *(Steps taken to reach that goal?)* | 1. Attend a Closed Road Testing (CRT) site and conduct Autonomous driving 2. Work through the required steps needed to setup a Autonomous Feature Test (AFT) test on the UI 3. Learn and put into practise the methods of intervening with the system 4. Safely carry out an AFT | | | |
| **Session:**  *(What are you planning to do? What resources did you use?)* | Today you will attend the test site and we will show you how to set up an AFT through the steps required on the UI.  We will show you the areas we use on the site to ensure your understanding of the different areas.  We will have discussions around Interventions with the systems and carry out a couple of tes circuits to make sure you are comfortable operating the system, that you feel in control to intervene with the system if necessary and we will start to build up your confidence. | | | |
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| **Trainer**  **Feedback:**  *(What Went Well & Areas Of Improvement)* | Alastair showed a great understanding of the gamepad test and carried out successful demonstrations of it. When conducting the AV Testing, he presented good observations before engaging. We discussed the importance of these observations when moving to open-road testing and for him to ensure they are carried out before allowing AV. We had a discussion about ‘allowing the model’ to see if it would carry out what we want it to do, we informed Alastair that this is not best practise and what we want to see going forward is you to intervene as soon as you feel the model is not performing safely or within the highway code. Following this discussion and some more tests, he demonstrated an understanding of what was discussed and provided good, safe interventions. His handover to AV at the start was a little delayed, however with experience, it became a smooth transition. Interventions were made safely and controlled without any over input. Overall Alastair achieved a pass in Unit 2, demonstrating safe and controlled handover and intervening of AV when required. | | | |
| **Learner Self-Reflection:** | I’m happy with my understanding of all the different systems so far.  I have taken the feedback onboard regarding the question of “allowing the model”, I will continue to follow Best Practices and to intervene as soon as I deem unsafe whilst in AV. | | | |

| **Lesson Plan** | | | |
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| **Date:** | 12/03/2024 | | |
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| **Aim:**  *(Overall goal?)* | Complete all Learning Outcomes required for **Unit 3**: - LO1 Prepare an autonomous vehicle for safe operation in a Open Road Testing - LO2 Operate an autonomous vehicle in a Open Road Testing environment | | |
| **Objective:**  *(Steps taken to reach that goal?)* | - Head to Linton Street and Sommers Town to learn about on road testing. - You will be shown how to correctly setup an AFT for an Open Road Test, using the UI. - You will have the opportunity to demonstrate your ability to safely conduct testing. | | |
| **Session:**  *(What are you planning to do? What resources did you use?)* | During this session you will head out to Linton Street, Sommers Town and following successful competence at these test sites, you will conduct a Cali V2 test route. These environments will help you to further develop your skills as an AVSO. You will be shown how to set up an AFT, how to manually plot a route/load one from the UI pre planned maps and carry out an AFT of this route. | | |
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| **Trainer**  **Feedback:**  *(What Went Well & Areas Of Improvement)* | Alastair did well carrying out open-road testing today with a good focus on safety. At Linton Street we had a discussion about the driving standards required here at Wayve and the importance for all drivers to maintain them.  Alastair gives great 360 observations before and during AV testing. An area to improve would be ensuring he brings his hand position up on the steering wheel during DC and following making interventions. He carried out a successful solo drive at Linton street which he reported went well. We headed over to Sommers Town to familiarise him with this area, he carried out some successful testing in this area and started to feel more comfortable in his skills operating in AV.  After lunch we had a discussion and emphasised the need for him to be more observant on more dynamic routes. He showed good ability to continually scan the area for hazards whilst in AV. At the end of the final run we did cover a keep clear sign on the floor.  We closed the session with a discussion about driving standards here at Wayve and the need for these to be upheld, maintaining a good hand position on the steering wheel following intervening, and the importance of all round observations.  Overall, good to see safety as a priority during AV with no concerns here, tomorrow we will look to further build upon your AV skills and work on ensuring you uphold the required driving standards. | | |
| **Learner Self-Reflection:** |  | | |

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| **Date:** | 13/03/24 | | |
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| **Aim:**  *(Overall goal?)* | - Conduct testing on Cali V2 routes and build up to Alpha routes - Improve to the Driving standards required, ready for Unit 3 Assessment | | |
| **Objective:**  *(Steps taken to reach that goal?)* | - Have a discussion about the Driving standards required here at Wayve - Successfully demonstrate the required driving standards during AV testing.  - Expand routes to Cali V2, and Alpha Lane routes | | |
| **Session:**  *(What are you planning to do? What resources did you use?)* | Today we start with a discussion about the driving standards required here at Wayve and what we expect all AVSO’s to uphold. We will do a couple of Cali V2 runs to put this into practice, ensuring safety is kept at a priority. Once we have established the standards are being met, we will build further up onto Alpha Test Routes. These will further build upon your AV skills working toward your final Unit 3 assessment. Today focus on: - Building AV skills and confidence operating  - Safety is upheld when conducting testing  - Driving standards are maintained | | |
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| **Trainer**  **Feedback:**  *(What Went Well & Areas Of Improvement)* | This morning we had a good discussion regarding the standards required by all AVSO's and Alastair definitely showed great improvement with these throughout our testing today. We conducted Cali V2 and Alpha 1 and 2 routes, all which were successful. He showed great awareness around the vehicle and safety was a priority. Before the Alpha Lanes, I conducted a Demonstration ride to which he felt was a great learning point. We discussed picking a point up ahead where you would like to engage AV, start doing your 360 checks on approach to this and then begin AV at that point. Alastair showed good examples of this and started to give an audible run through of his observations and thought processes. Whilst Alastair continues to build upon his AV skills, it would be good to see him continue these methods for both his own development and for us to be able to see his thought process. Great day overall, continue to think about the driving standards, hand position on the steering wheel in DC and following an intervention.  You are showing competent skills towards becoming an AVSO. | | |
| **Learner Self-Reflection:** |  | | |

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| **Name:** | Alastair Mead | | |
| **Job Title:** | Autonomous Vehicle Safety Operator (AVSO) | | |

| **Date:** | 14/03/24 | | |
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| **Aim:**  *(Overall goal?)* | Further show your ability to operate the Autonomous vehicle systems by conducting ‘Solo testing’ on our ALR routes. | | |
| **Objective:**  *(Steps taken to reach that goal?)* | - Showcase your ability to successfully carry out testing of an autonomous vehicle when driving ‘solo’ | | |
| **Session:**  *(What are you planning to do? What resources did you use?)* | All being well that the learner has shown a successful ability to control the AV system to the required standard, they will now be able to head out and conduct ‘Solo On-road testing’. This will be a mixture of routes covered during their training, Alpha routes up to ALR’s. | | |
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| **Trainer**  **Feedback:**  *(What Went Well & Areas Of Improvement)* | We started by completing a Cali V2 which had been started from the previous day. Alastair showed great confidence in his intervention timing and was also trying to link up the correct taxonomy to the intervention. During the route he also displayed good awareness around the vehicle and very good observations. There were a couple of occasions where following an intervention Alastair drove a distance before re-engaging. We covered that pause in autonomy during the debrief and we confirmed we would look at this for future runs. We moved onto ALR 1 and Alstair continued to show very good observations during the drive and the correct time to intervene, he showed safe driving as well, with courtesy to other road users. He took on board the feedback well, and was engaging early during this run, when safe to do so. For the ALR 2 route, I decided to sit in the back to give a more independent feel to the task and to see how Alastair reacted. The run was fine, Alastair conducted a difficult route in a safe manner, with great observations and awareness of his surroundings. During the debrief we spoke about the possibility of carrying out tasks independently from tomorrow. I believe Alastair has the ability to and is safe to start smaller routes and build up independently. | | |
| **Learner Self-Reflection:** |  | | |