| **Lesson Plan** | | | |
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| **Name:** | Katy Copping | | |
| **Job Title:** | Autonomous Vehicle Safety Operator (AVSO) | | |

| **Date:** | 12/03/2024 | | |
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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?)* | - Undergo a high standard driving test to show your professionalism and ability to drive to the standards required here at Wayve  - Be shown how to conduct a BUI of a vehicle and ensure its roadworthiness before heading out onto the road.  - 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)* | Katy demonstrated a good understanding of the BUI, setting up a Data Collection run and drove to the required high standard of driving between Wayve HQ and Millbrook and showed good knowledge of the Highway Code. Katy demonstrated a good level of forward planning and was adapting her speeds according to the speed limits when she approached the signs.  On the motorways it was highlighted to Katy that she needs to ensure she does not undertake vehicles travelling in the right hand lane and she was receptive to this feedback..  Overall Katy achieved a pass mark for this Unit | | |
| **Learner Self-Reflection:** | The drive to Millbrook was slightly challenging due to rain. But I am well versed in challenging weather whilst driving. Understanding the BUI (as most new tech) took a few sessions to grasp. But once familiarised with the system it was simple to navigate. The undertaking of the vehicle on the motorway wasn’t intentional. And I understand where I went wrong and in the future will maintain higher standards of driving, adhering to the highway code at all times. | | |

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| **Date:** | 12/03/2024 | | |
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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?)* | - Attend a Closed Road Testing (CRT) site and conduct Autonomous driving - Work through the required steps needed to setup a Autonomous Feature Test (AFT) test on the UI - Learn and put into practise the methods of intervening with the system - 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 s 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)* | Katy carried out the Gamepad check and has a good understanding of the process.  When being introduced to engaging in AV mode, Katy was at first quite apprehensive and was maintaining pressure on the brake/accelerator, however after some practice she began to get familiar with it and was able to confidently control the vehicle, carry out interventions and smoothly hand over to AV.  We discussed the importance of good observations and blindspot checks whilst in AV and she has shown a good positive attitude to feedback.  Whilst there is still room for improvement, she has shown good progress in carrying out observations and blindspot checks before engaging in AV and during the runs.  Katy has done well today and has achieved a pass mark in this level. Katy can take the new skills she has learnt and practise them on the public roads tomorrow. | | |
| **Learner Self-Reflection:** | The gamepad check, again, took time to familiarise the pattern of order. But once I had familiarised myself with its functions it was simple to navigate. I understand the importance of operating the vehicle when performing a gamepad and to ensure all protocols are followed. I was, of course, hesitant when first engaging with the AV. It goes against everything I know as a driver, so understandably I was showing hesitancy in the beginning to take my foot off the pedals. But once I had repeated the process a few times I soon got the hang of it. Blind spots were something I had to work on. Being predominantly a van driver for many years I’ve been used to using mirrors and unable to complete full over the shoulder checks due to obscured views. However, I am including them with every check I now do. And I am keenly aware of my surroundings whilst operating the vehicle. | | |

[[1]](#footnote-0)

| **Lesson Plan** | | | |
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| **Name:** | Katy Copping | | |
| **Job Title:** | Autonomous Vehicle Safety Operator (AVSO) | | |

| **Date:** | 13/03/2024 | | |
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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)* | Katy carried out the BUI and showed a good understanding of how to set up an AFT on the UI and how to plot a route for an AV run.  She did well with on road testing today and shown a great improvement in handling the car in AV and demonstrated good standards in control and safety. We discussed the need for blindspot checks earlier on in the day, which improved a great deal throughout the day. Her interventions are carried out really well and controlled. She conducted a solo drive in the Linton Street location which she felt went well and that she felt that her confidence in AV is improving.  We discussed driving to the highway code standards and staying within the speed limits.  We then moved over to Sommers town where Katy continued to grow more confident in AV and she had control with interventions in a safe and timely manner.  We went on to do a short Cali route where Katy demonstrated a good level of AV testing.  Well done Katy, keep up the good work! | | |
| **Learner Self-Reflection:** | Unit 3 was positive and gave me a much better understanding of what it's like to be an AVSO. Using different models that aren't as compliant as the baseline gave me an insight to how the vehicle can perform and that having a hyper acute response time is paramount. I enjoyed being able to use my skills as a driver to the test to keep rectifying the model when it wasn't following good practice. I have been observing and completing shoulder checks throughout and feel I have improved significantly. | | |

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| **Name:** | Katy Copping | | |
| **Job Title:** | Autonomous Vehicle Safety Operator (AVSO) | | |

| **Date:** | 14/03/2024 | | |
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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 | | |
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| **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)* | Katy was a little apprehensive this afternoon after conducting the gamepad check and making some minor errors. She voiced her feelings that there was a lot to take in and so little time to learn it all. We discussed that she should not be too hard on herself and with practice, it will all get better and fall into place. She carried out the BUI and showed a good understanding of how to set up an AFT on the UI and how to plot a route for an AV run.  She started off with a small plotted route from Market Street, then moved on to do short Cali and she did really well with on road testing today. She has shown a great improvement in handling the car in AV and demonstrated high standards in control and safety. Her observations have improved a great deal and her interventions are carried out well and controlled.  We discussed the importance of trying to follow the map whilst in AV so we can ensure the car is following the correct route and be ready to intervene if it is about to go off route. Katy voiced that she was finding the maps very different to what she was used to, however she worked hard on it and improved a great deal throughout the day.  We used an older model that didn’t perform as well as the current baseline, which Katy handled very well. | | |
| **Learner Self-Reflection:** | Unit 3 was positive and gave me a much better understanding of what it's like to be an AVSO. Using different models that aren't as compliant as the baseline gave me an insight to how the vehicle can perform and that having a hyper acute response time is paramount. I enjoyed being able to use my skills as a driver to the test to keep rectifying the model when it wasn't following good practice. I have been observing and completing shoulder checks throughout and feel I have improved significantly. | | |

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| **Name:** | Katy Copping | | |
| **Job Title:** | Autonomous Vehicle Safety Operator (AVSO) | | |

| **Date:** | 15/03/2024 | | |
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| **Aim:**  *(Overall goal?)* | Make sure Katy is:  -Safe while in AV mode  -High level observations and aware of dangers  -Time and correctly intervene where necessary  -Identify any weakness and help with training  -Reach a standard where Katy can AV independently | | |
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| **Objective:**  *(Steps taken to reach that goal?)* | Further expand Katy’s experience and challenge to cover new routes and models. | | |
| **Session:**  *(What are you planning to do? What resources did you use?)* | -Identify any areas for growth  -Progress from ALR routes  -Move onto other models other than the baseline | | |
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| **Trainer**  **Feedback:**  *(What Went Well & Areas Of Improvement)* | Continued from the following day on ALR routes. Katy’s general observations were good, but we highlighted missing the occasional blind spot check, so we covered that and the importance of those checks while AV’ing. Katy quickly improved these and wasn’t a further issue. On a couple of occasions in the first run when turning left the vehicle got very close to the curb. We discussed if Katy had identified how close we were, Katy had realised but didn’t intervene, so we covered the importance for public safety and high driving standards to intervene in the future, after this there were a few more times where the model was “early turning” which Katy handled very well. We also covered when intervening, to look at re-engaging AV quicker when safe to do so, Katy was apprehensive to do this, but I felt as though some fine tuning and advice during the day would help, and we would continue to work on that. Throughout the drive Katy showed a very good level of driving, good understanding when using the UI, correct timing for interventions and was mostly correct with taxonomy labelling. I was happy for Katy to be challenged further by moving onto a free plotted route using a model that wasn’t the baseline. During the route Katy was very confident on when to intervene, and all interventions were very well timed. Katy showed that she took onboard the feedback provided from the following run and actioned them in this run. Katy showed progression on observations, engaging AV quicker, and intervening better on early turn situations all independently. Through the progress Katy had made through the day I was happy to sit in the back to give a more independent feel during AV. Katy continued to show a high level of safe driving with great intervention timing, re-engaging quicker when safe to do so, good observations and taxonomy labelling. I believe Katy is ready to move onto independent AV’ing from tomorrow. | | |
| **Learner Self-Reflection:** | Using all the experience from throughout the week, I feel I have excelled with operating the vehicles in AV mode. I am more confident and have greater self esteem whilst undertaking AV runs whilst alone. I always adopt high levels of driving when behind the wheel of any vehicle. My observations need to be accurate and on point in order to avoid any potential hazard. Watching back on the early videos, it is clear to see how far I’ve come. And I watch them now, having given the models a chance to show me what they’re capable of. And I now know that I need to allow the models the opportunity to do their job. I am grateful for the time and knowledge invested in me throughout this journey. And I thank all those involved. | | |

1. New Starter Training 02/08/23 [↑](#footnote-ref-0)