

# Automatic Mechanical Ventilation Control (AMVC)

Mentor: Antwan D. Clark

Project Start 1/24/2022

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Task	Start	Days	End	1/24/2022							1/31/2022							2/7/2022							2/14/2022							2/21/2022							2/28/2022							3/7/2022							3/14/2022							3/21/2022							3/28/2022							4/4/2022							4/11/2022							4/18/2022							4/25/2022																
				M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W
<b>Preparations</b>																																																																																																															
Choosing a Project	1/24/2022	7	1/30/2022																																																																																																												
<b>Build a system with a reliable lang model and a regular PCV model</b>																																																																																																															
Reading and Selecting from Papers	1/31/2022	14	2/13/2022																																																																																																												
Reconstruct Simulation Models from Papers	2/14/2022	7	2/21/2022																																																																																																												
Debugging and Making Corrections	2/22/2022	3	2/25/2022																																																																																																												
<b>Explore and define legit actions for RL agent(PCV controller)</b>																																																																																																															
Analyzing Results	2/26/2022	7	3/5/2022																																																																																																												
Deciding Rewards and Actions based on previous analysis	3/6/2022	7	3/13/2022																																																																																																												
Build MDP	3/14/2022	7	3/21/2022																																																																																																												
<b>Build the RL environment</b>																																																																																																															
Building the MDPs in a Custom AI environment	3/22/2022	3	3/25/2022																																																																																																												
Explore and build RL networks	3/26/2022	13	4/8/2022																																																																																																												
Research for an Evaluation Metrics for Network	3/26/2022	16	4/11/2022																																																																																																												
<b>Evaluate and Improve</b>																																																																																																															
Training Network	4/12/2022	10	4/22/2022																																																																																																												
Finishing Final Report and Presentation	4/23/2022	5	4/28/2022																																																																																																												