```
[4.0K] asl_gremlin_msgs
    [6.8K]
            CMakeLists.txt
     [4.0K]
            include
       - [4.0K] asl_gremlin_msgs
    [4.0K]
            msg
           361
                MotorAngVel.msg
           441
                 MotorCmd.msg
           36]
                 MotorPwm.msg
          145]
                 RefTraj.msg
           48]
                 VehicleState.msg
   [2.5K]
           package.xml
   [4.0K]
            src
[4.0K] asl_gremlin_pkg
   [6.5K] CMakeLists.txt
    [4.0K]
            config
       - [ 656] rover_parameters.yaml
    [4.0K] include
        [4.0K] asl_gremlin_pkg
            [1.4K] GetParam.h
          - [1.3K]
                     SubscribeTopic.h
    [4.0K]
            launch
       \cdot [1.9K] asl_gremlin_launch.launch
    [2.3K] package.xml
    [4.0K]
            src
        [4.0K] asl gremlin pkg
          — [ 678] GetParam.cpp
— [ 44] SubscribeTopic.cpp
[2.0K] CMakeLists.txt
[4.0K]
       controller
    [4.0K] cfg
      — [ 733] controllerGainSet.cfg
   [7.7K] CMakeLists.txt
[4.0K] include
        [4.0K] controller
           - [2.8K]
                     BackSteppingController.h
            [5.5K]
                     BackSteppingController_main.h
           – [ 525]
                     ControllerBase.h
            [3.6K]
                     controller utilities.h
                     hdg_correct_final_v2.txt
            [8.1K]
                     OmegaToPWM.\overline{h}
            [ 715]
    [2.6K] package.xml
    [4.0K]
        [ 835]
                 angular vel to pwm node.cpp
                backstepping_controller_node.cpp
        [1.8K]
        [4.0K] controller

├─ [ 52] BackSteppingController.cpp
          [ 39] ControllerBase.cpp[1.4K] OmegaToPWM.cpp
       - [3.9K]
                controllerGainSet client.cpp
[1.0K] LICENSE
[4.0K]
        state_feedback
    [4.0K] cfg
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  - [8.1K] CMakeLists.txt
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                state_feedback
            [570] custom type traits.h
            [1.4K]
                     EncoderDataToOmega.h
            [4.2K]
                     FeedbackSelected.h
           - [ 914<u>]</u>
                     ForwardEuler.h
           — [1.1K]
                     Gps2xy.h
           - [6.5K]
                     vector arithmetic.h
    [2.7K] package.xml
    [4.0K]
            src
       · [2.2K]
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                encoder_data_to_omega.cpp
encoder_to_pose.cpp
        [1.5K]
        [3.7K]
         [ 487]
                 feedback selected.cpp
        [2.6K]
                 gps_to_pose.cpp
                 state_feedback
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                     ForwardEuler.cpp
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[4.0K] test_asl_gremlin
    [7.6K] CMakeLists.txt
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       [4.0K] test_asl_gremlin
    [4.0K] launch
        [ 357] test_encoder_to_omega.launch
    [2.8K] package.xml
    [4.0K]
             src
                cpp_output_data
        [4.0K]
            [6.8K] converted_encoder_to_omega.dat
             [4.0K] plotting
               — [ 14K] left wheel angular vel.pdf
               - [ 537] plot_ang_vel.plt
- [ 14K] right_wheel_angular_vel.pdf
            [9.7K] reference_traj.dat
```

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[4.0K] matlab_data
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- [ 17K] omega_from_encoder.txt
           — [ 19K] pose_encoder.txt
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[2.4K] test_polynomial_evaluation.cpp
         [1.8K] test_publish_encoder_ticks.cpp
[767] test_SubscribeTopic.cpp
[4.0K] trajectory_generation
    [4.0K] cfg
[535] waypointSet.cfg
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             [1.6K]
                       EvaluatePolynomial.h
                       MinimumJerkTrajectory.h
            - [4.7K]
              [ 655]
                       TrajectoryBase.h
              [ 268]
                       trajectory publisher.h
              [ 945]
                       WaypointSubscribe.h
     [4.0K] launch
        · [ 213] trajectory_generation.launch
    [2.7K] package.xml
     [4.0K]
              src
         [4.0K] trajectory_generation
├── [1.2K] DistanceToWaypoint.cpp
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                       MinimumJerkTrajectory.cpp
                 50]
                       TrajectoryBase.cpp
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           - [2.0K] WaypointSubscribe.cpp
       - [2.5K] trajectory_generator_node.cpp
- [2.6K] waypointSet_client.cpp
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        tree_view.pdf
        utility_pkg
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    [6.8K] CMakeLists.txt [4.0K] include
        [4.0K] utility pkg
            — [ 656] CmdArgParser.h
                       custom_algorithms.h
            - [1.3K]
            -[2.3K]
                       str_manip.h
            — [ 267] utilīities.h
    [2.1K] package.xml [4.0K] src
             src
         [4.0K] utility_pkg
           — [1.8K] CmdArgParser.cpp
— [ 43] custom_algorithms.cpp
           — [ 35] str_manip.cpp
— [ 679] utilities.cpp
```

44 directories, 94 files