

Appendix B

Traverse Controller Implementation Details

Figure B.1 is the execution flow chart for the Traverse Controller application. Two portions of the Traverse Controller LabVIEW implementation are provided for reference. Figure B.2 demonstrates how distance measurements are received and processed. It also shows how the traverse drive value is transmitted from the application. Figure B.3 demonstrates the PID algorithm implementation.

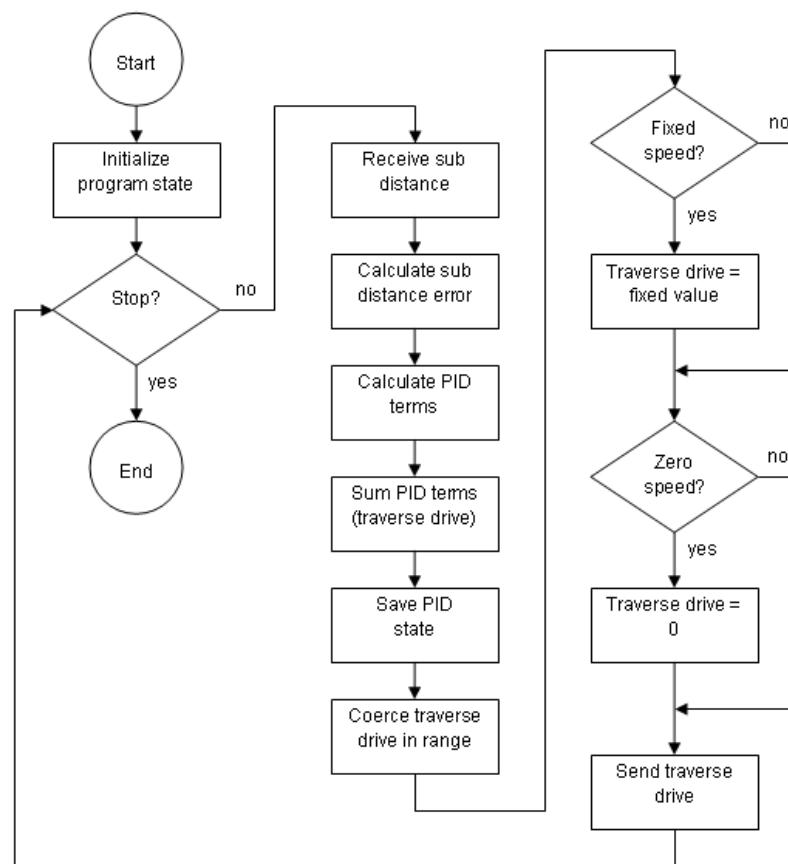


Figure B.1. Traverse Controller flow chart.

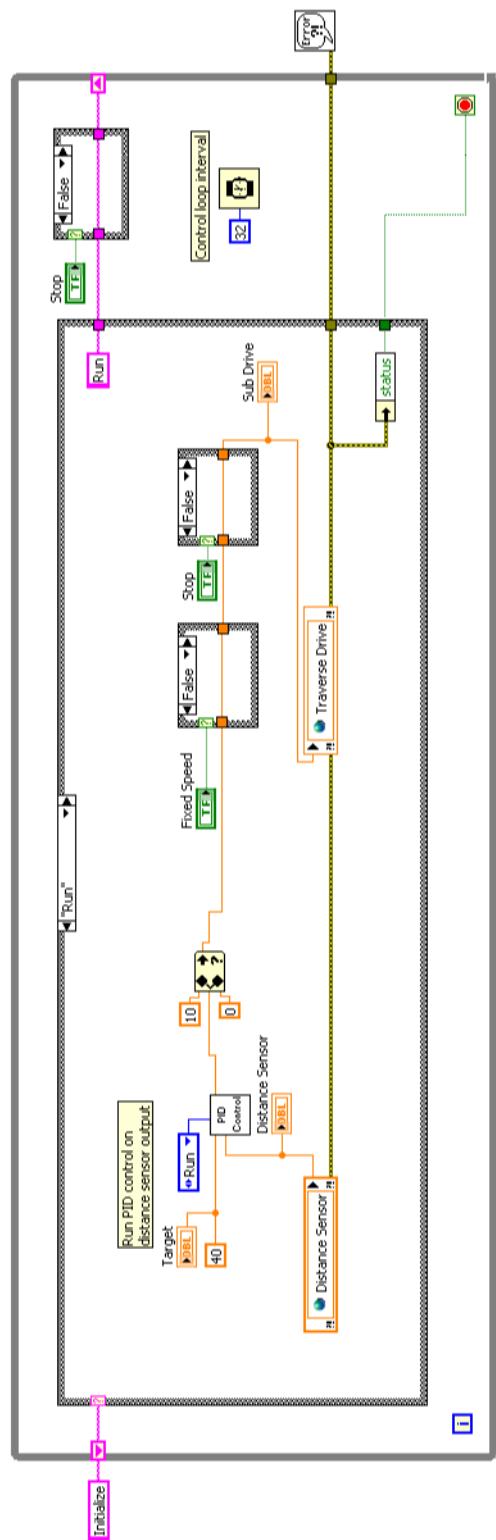


Figure B.2. Traverse Controller VI run state.

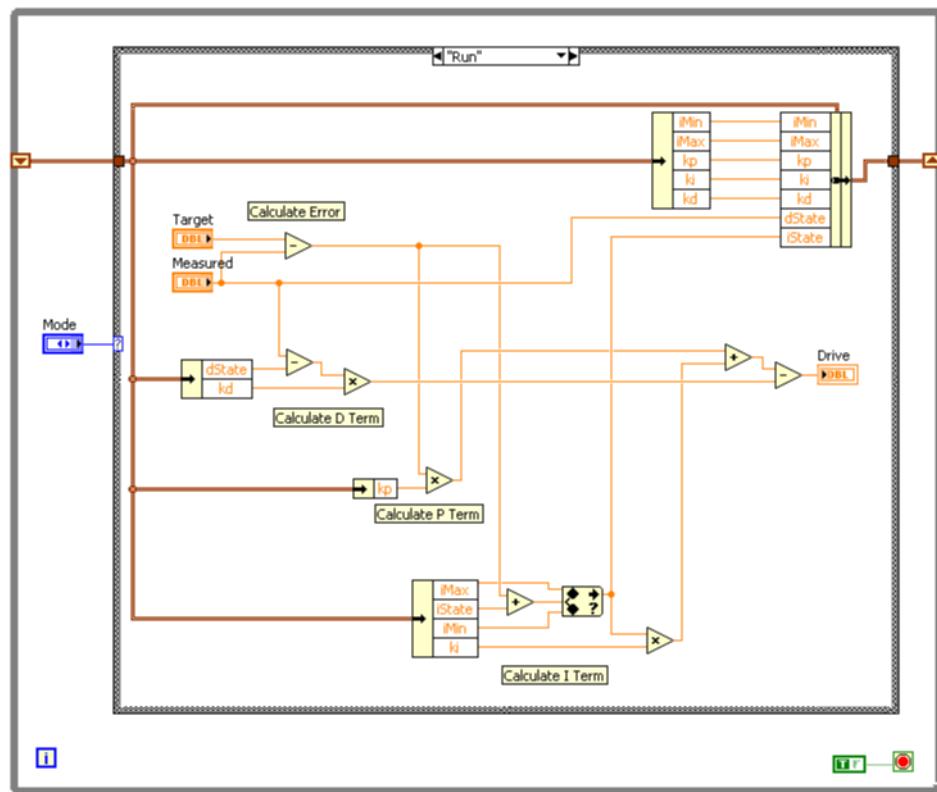


Figure B.3. PID algorithm implementation.