**Software Layer Diagram**

**Application Commands**: User visible terminal commands

**Command Line Interface (CLI)**: Terminal server for Client

**Intelligence**: Dead Reckoning Navigation, Sensor Integration and Utilization, Expert Functionality, Additional Logic

**Navigation**: Turning, Forward/Reverse Motion, Encoder Feedback Processing, Navigation logic

**Device**: PIC Interface, Motor Controller Interface, Encoder Interface, Sensor Interface

**Drivers**: I²C, USART, Timer, PWM, ADC, EEPROM

**Hardware**: Motor Controllers, Feedback Systems, Power Distribution, Motor Drivers

- **I²C**
  - PIC, DC Motor Controller, Stepper Motor Controller, Sensors, External Devices
  - x4 Servo PWM
  - x8 DC PWM
  - x8 Stepper Clock