

**Dead Reckoning Group
Bi-weekly Report 4**

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Accomplishments

- Assembled PCB
 - Attached PAK VII to PCB
 - Wired between socket bank and PAK VII
- Accelerometer
 - Rewired socket bank
 - Tested for proper outputs
- Parts Ordered/Purchased
 - Ordered PAK VII to convert the PWM signal of the accelerometer to a digital output. Communicates with a serial output to the OOPic.
 - Bought a DC Power Adapter so that batteries would not be used during programming.
- Software
 - Coded turn algorithm using gyroscope
 - Coded objects for sensors
 - Encoder
 - Compass
- Testing
 - Ran encoder tests to determine error

Problems / Solutions

- Gyroscope turn algorithm
- Encoder navigation algorithm drifting
- Lack of Arcsin and Arccos functions in OOPic
- PAK VII not working correctly. Output is always high. Company that the chip was purchased from is being contacted so that a replacement can be obtained. As a backup, the accelerometer has an analog mode and that output is currently going to be used until the PAK VII situation is settled.

Goals

- Integrate data
- Accelerometer sensor getting readings and navigation algorithm
- Create/do final demos
- Begin documentation and presentation