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 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