**Arduino Program Flowchart**

*Blue Arrows = Normal Code Flow*

*Purple Arrows = Interrupts*

Initial Variables

**Setup Sequence**

*Startup*

*Wakeup command*

*From Serial*

*Sleep command from*

*Serial Arrived*

**Awake**

Reset Peak

*Timer1 Interrupts at 80Hz*

*Wait for Wakeup*

*Command from Serial*

**Sleeping**

Sleep Mode

**Send Peak**

Send peak Accel to Serial

**Read Acceleration**

Compare to Max, update Max

Read acceleration from SPI

Setup Timer Interrupt

Go to Sleep