Measure ambient information:

1. Board Temp
2. Sunlight
3. Barometric pressure
4. Current draw (battery)
5. Soil moisture
6. Water valve(s) status

Keep soil moisture above 40%, and below 80%

Moisture sensors:

1. Eastern
2. Middle (only used for information. not valve control.)
3. Western

Main loop

1. Get current clock ticks.
   1. Determine ticks next wakeup (5 min from now)
2. For each sensor:
   1. Get Sensor Reading:
   2. If sensor registers below 40% set desired valve state to Open
   3. If sensor register over 80% set desired valve state to Close
   4. Get valve state.
   5. While not in desired valve state
      1. Toggle State
      2. Wait 5ms.
      3. Get valve state.
3. Collect ambient information.
4. Send information to server.
5. Enter low power sleep/delay.
6. Get current clock ticks.
7. Determine delay to next wake up.
8. Low power delay until next wakeup

Valve information

1. Valve#
2. Valve State
3. Sensor#
4. Sensor Value