

Self Leveling Device

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NOTES FOR ASSIGNMENT

Requirements:

1. Functionality
2. Performance
 - Accuracy
 - within a half degree (depends on accuracy of accelerometer)
3. Economic
 - Cost of ownership
 - batteries
4. Energy
5. Health & Safety
6. Legal
7. Environmental
8. Maintainability
9. Manufacturability
10. Operational
 - Size, weight, shape, portability, ergonomics
 - Smaller than a cubic foot
 - no more than 5 lbs
11. Reliability & Availability
12. Social & Cultural
13. Political
14. Usability
 - Easy to use
15. Documentation

Needs Quick list:

- Must be able to place a stable object and not have it slide off
- small
- low power
- light weight (example: No more than 5 pounds)

- Table should not warp
- Base can level up to (30 ?) degrees
- Since device is held in hand what is max amount of torque and angular velocity a person to exert. (30 deg/s MAX angular velocity: [link](#) pg. 142)