

Specific Gravity Measurement Device

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Group 007



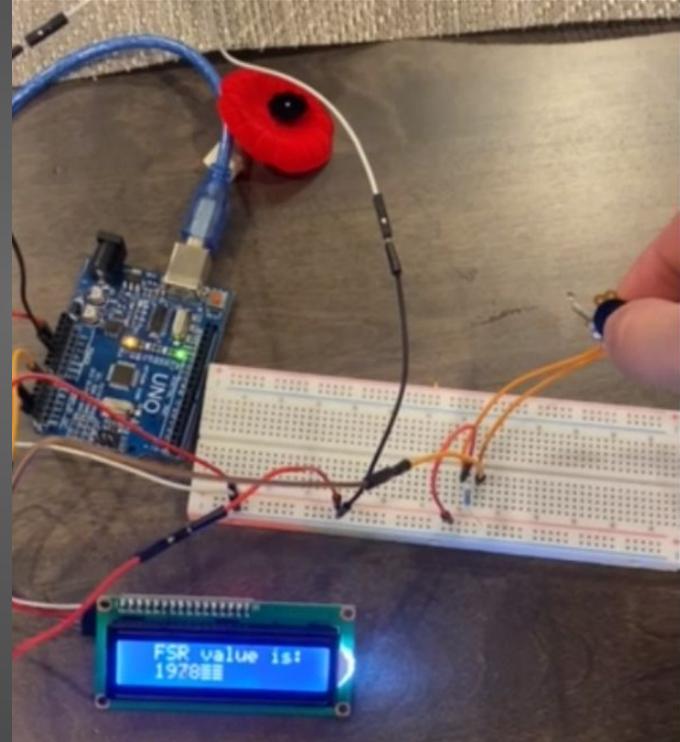
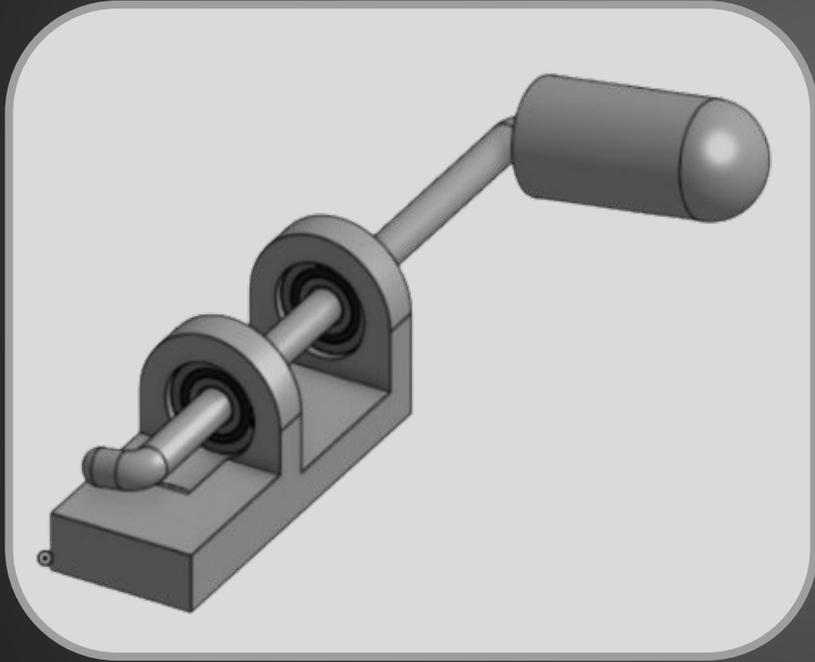
Problem Statement

- Safely and accurately measures **specific gravity** of beer during the beer making process.
- Automatically logs the **data**

$$\textit{Specific Gravity} = \frac{\text{density of the object}}{\text{density of water}} = \frac{P_{\text{object}}}{P_{\text{H}_2\text{O}}}$$



Measurement Design

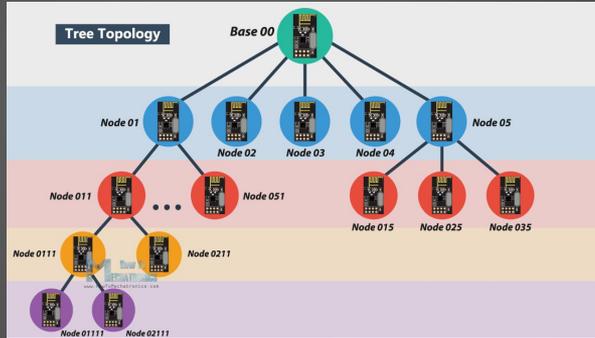


Display Design

NRF24L01



Data interval (ms)	1000
Data rows	10000
Data channels	1
Data orientation	Newest first



Current Data

TIME	Sensor
0:00:00.13	26.96

Historical Data

TIME	Sensor
0:00:00.13	26.96
23:59:59.14	26.96
23:59:58.13	27.39
23:59:57.13	26.96
23:59:56.13	26.96
23:59:55.13	27.39
23:59:54.12	26.96
23:59:53.12	27.06
23:59:47.11	27.06
23:59:46.10	27.06

◀ Newest

File Home Insert Draw Page Layout Formulas Data Review View Help Data Streamer

Disconnect Device	Import Data File	Start Data	Stop Data	Record Data	Stop Recording	Capture Screen	Reset Data	Advanced
Data Sources		Data Streaming		Data Recording			Advanced	



Questions

Are our designs feasible to be **food grade**? Is **copper** a potential material?

Do you have any **concerns** for our current design?

Are there any aspects missing to our device?

Anything we need to clarify?

Are there any unnecessary features you can't see yourself using?

