

A SMARTER MICROWAVE

Stuart Johnsen, Darin Stoker, James Watts

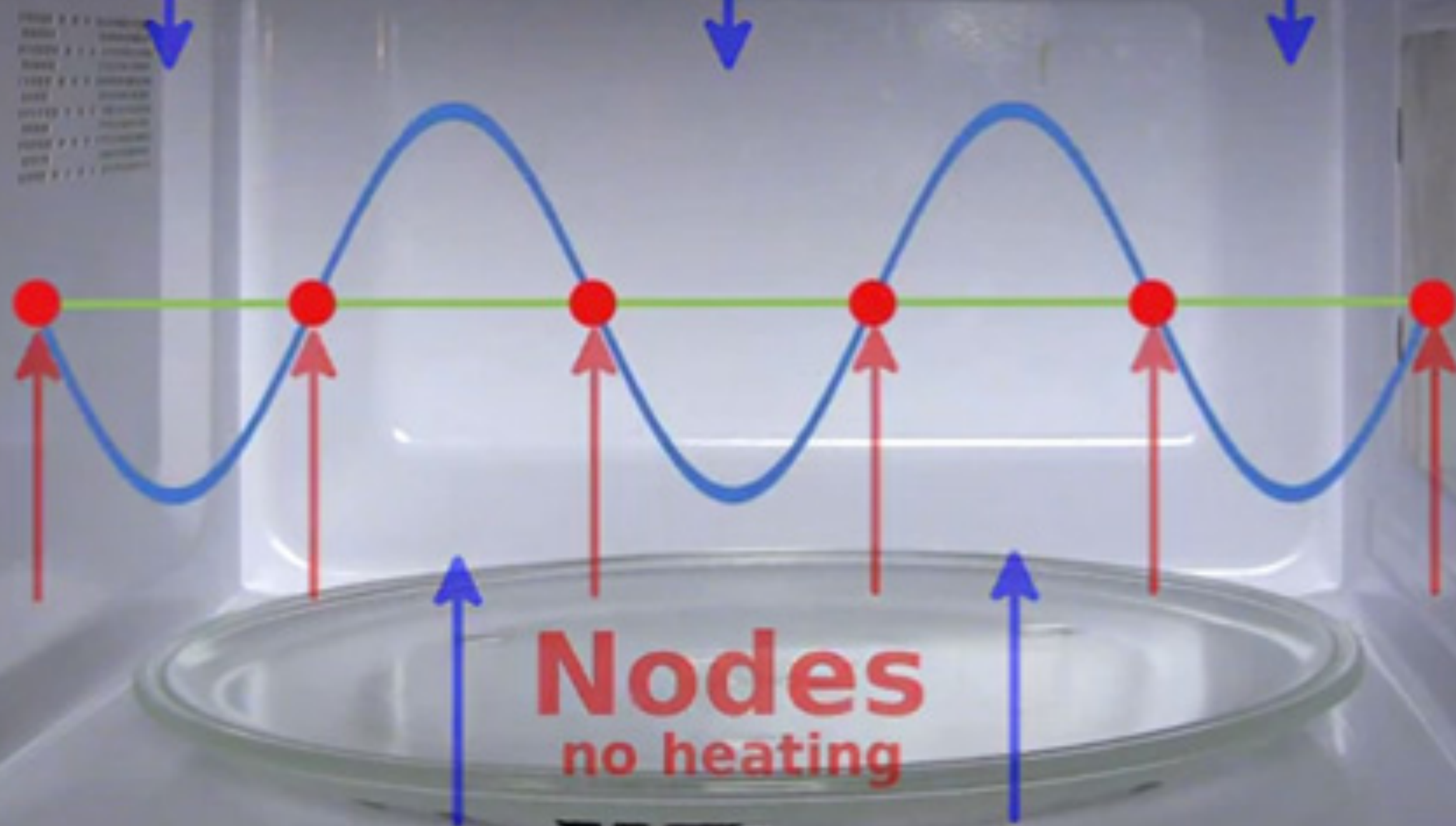
INTRODUCTION

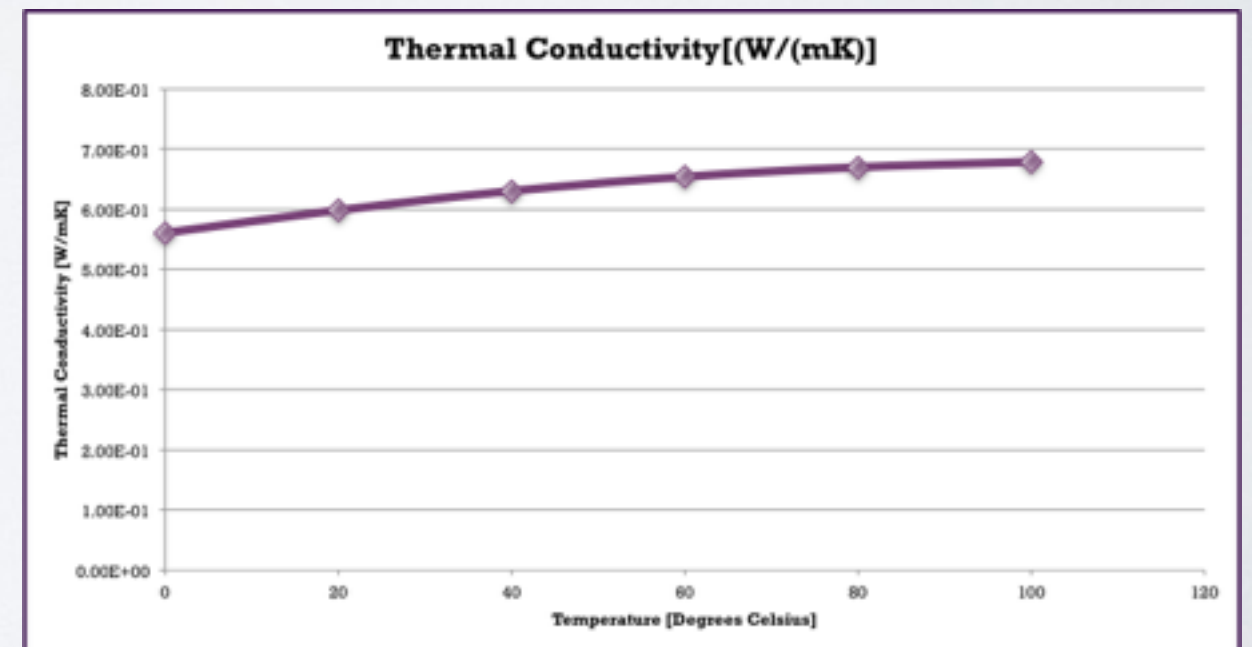
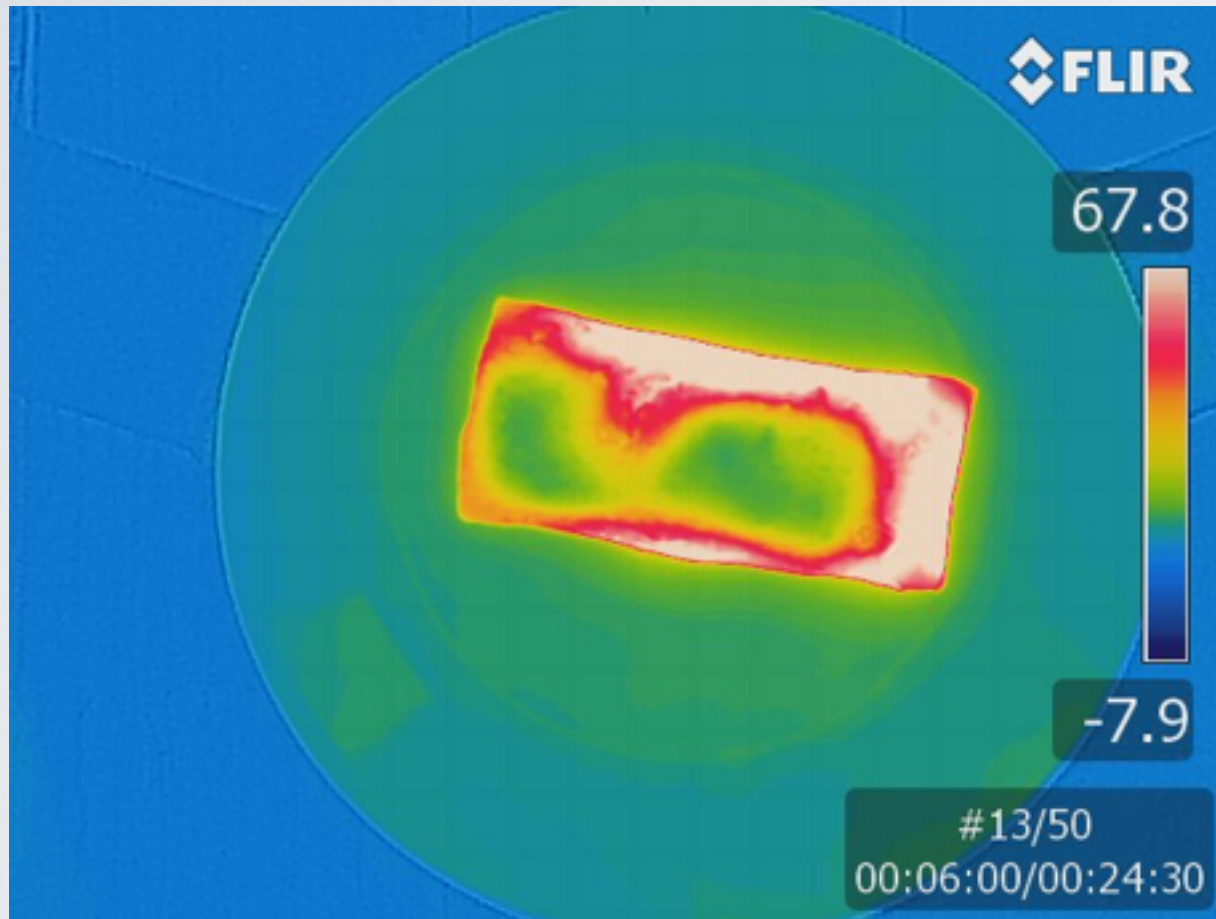
- Age Old Problem: Lava Cheese Outside, Ice Cube in Center
- Old Solution: Nuke it!
- We need a new solution...



Anti-Nodes

maximum
heating



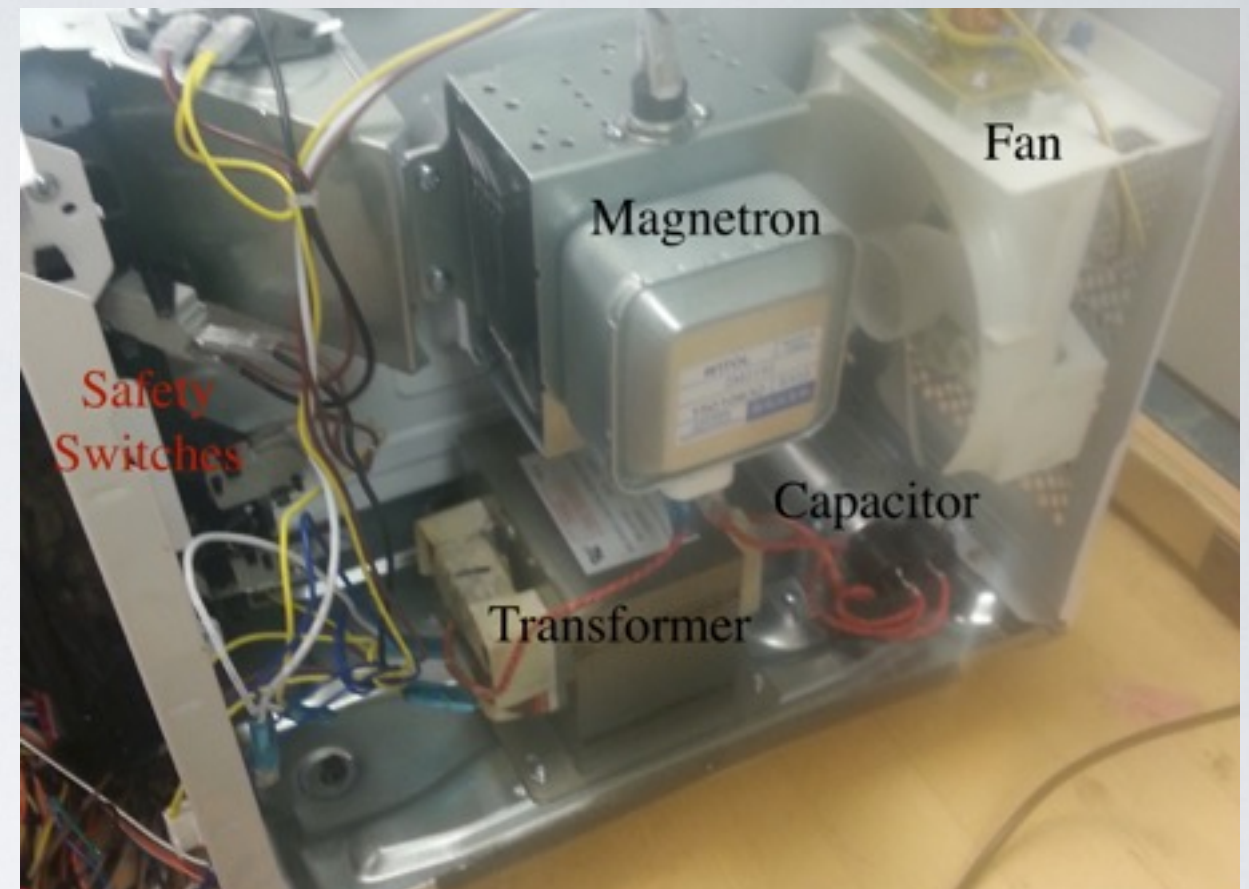
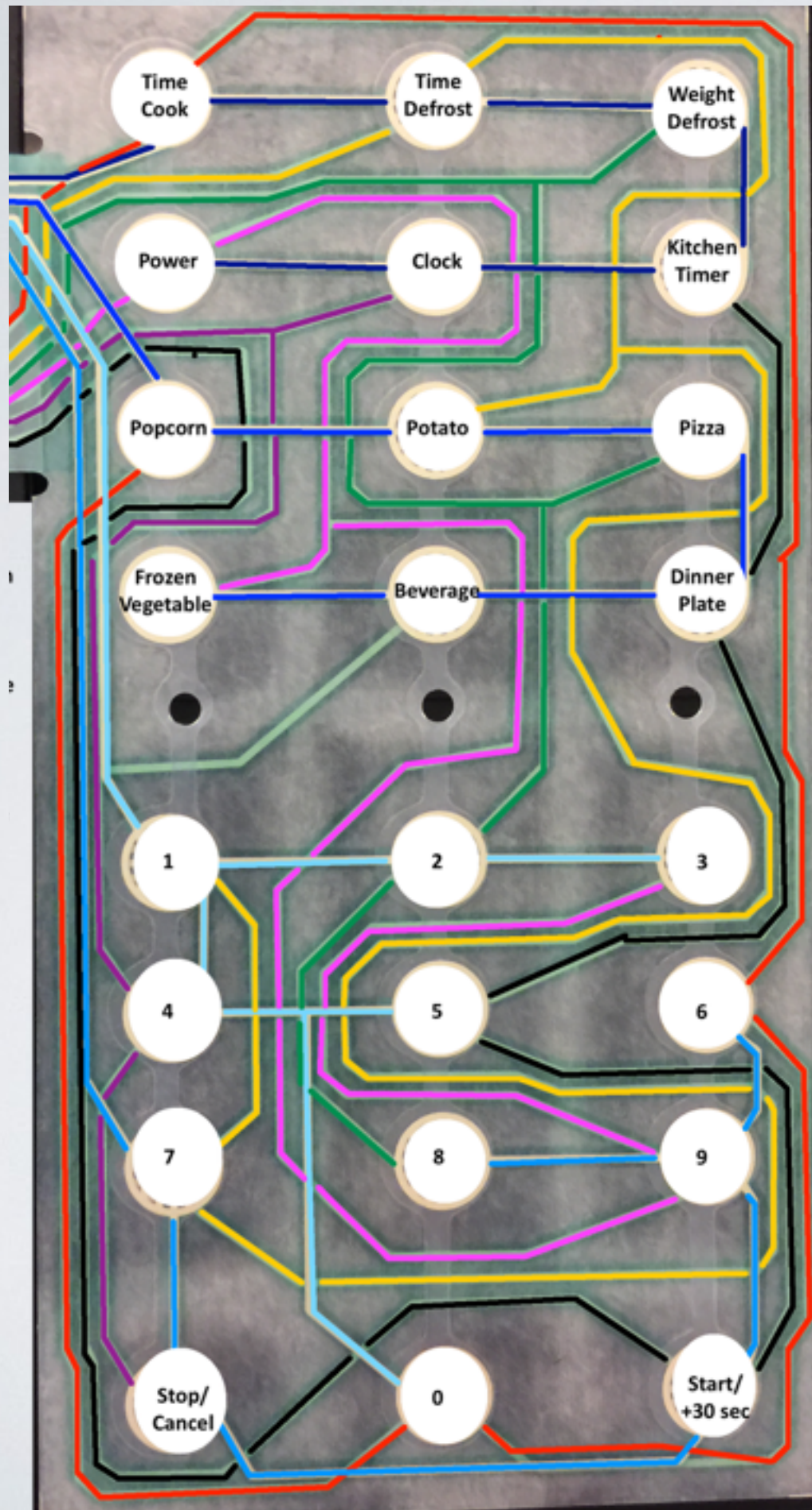


EQUIPMENT NEEDED

- Microwave Oven
- Android Tablet
- Android Studio
- Arduino
- Android-to-Arduino Bridge
- Thermal Camera

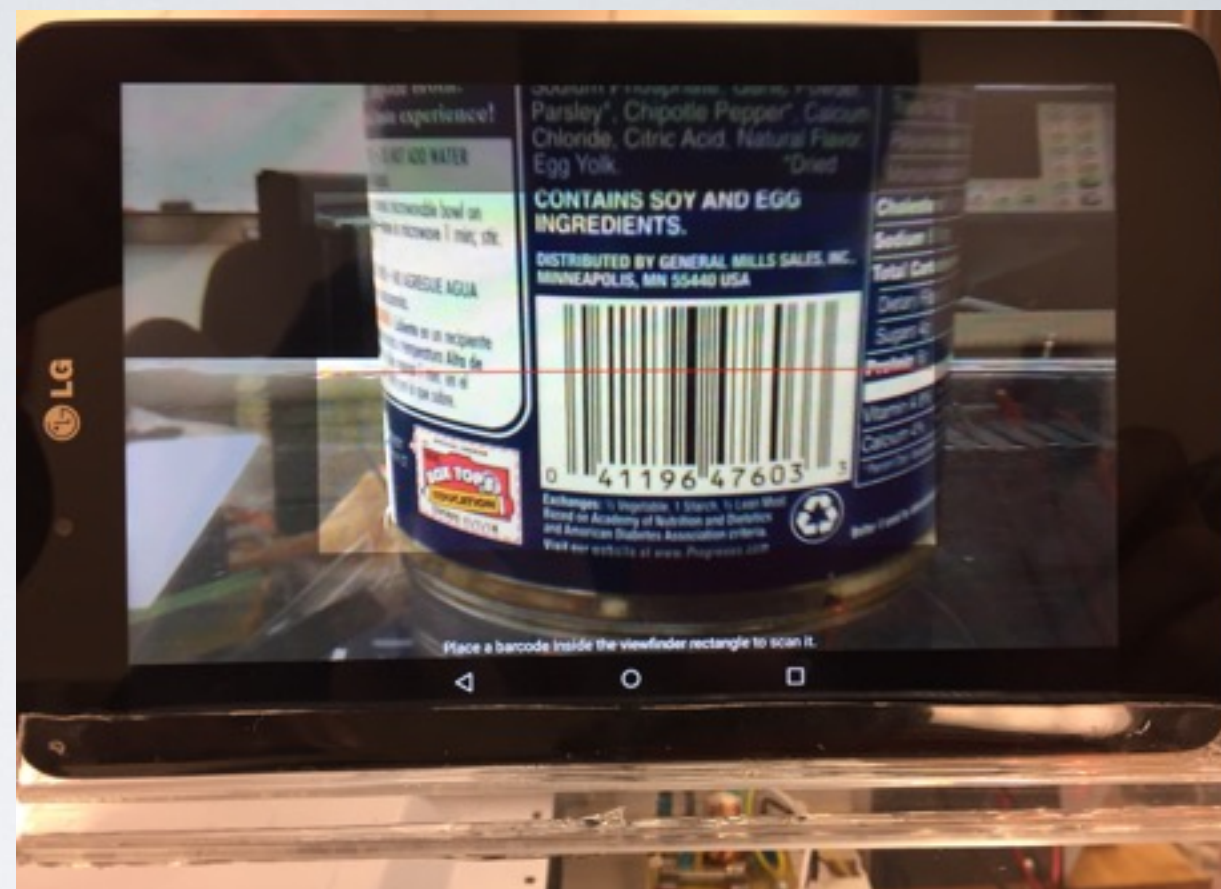
GOAL

- Alter a store-bought microwave so that it can be computer controlled.



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- Use UPC (Universal Product Code) scanning to let the microwave know the type of food automatically.
- Actively update a database of food cooking instructions query-able by the microwave.

Max rows: 1000

Auto complete Off

RunRun SelectedAuto completeClear

SQL statement:

SELECT * FROM FOOD ORDER BY id_number

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ID_NUMBER	FOOD_TYPE	BRAND_NAME	UPC_BARCODE	INSTRUCTIONS	FOOD_IMAGE
1	Chicken Pot Pie	Marie Callenders	21131501112	t330plh	ffd8ff... (77224 bytes)
2	Flour Tortilla	Lynn Wilsons	71221809109	t15plh	ffd8ffe000104a46494600010101004800480000ffd347050686f746f73686f7020332e30003842494d042
3	Quesadilla	homemade	null	t30plh	ffd8ffe000104a46494600010101004800480000ffd347050686f746f73686f7020332e30003842494d042
4	Corn Dog (frozen)	Foster Farms	75278950241	t60plh	ffd8ff... (281808 bytes)
5	Corn Dog (thawed)	Foster Farms	75278950241	t45plh	ffd8ff... (281808 bytes)
6	Chicken Pot Pie	Swanson	51000060327	t300plh	ffd8ffe000104a46494600010100000100010000ffdb00430005030404040305040404050506070c0807
7	Pork Bun	Cha Siu Bau	10497302204	t70plh	ffd8ff... (65356 bytes)
8	Edamame (1 Serving)	Tai Pei	70077004713	t370plh	ffd8ffe000104a46494600010101004800480000ffe005a46696c6520736f757263653a20687474703a2f2f
9	Edamame (Half Package)	Tai Pei	70077004713	t420plh	ffd8ffe000104a46494600010101004800480000ffe005a46696c6520736f757263653a20687474703a2f2f
10	Lasagna	Banquet	31000180218	t120plhrt60	ffd8ff... (82760 bytes)
11	Chicken Nugget Meal	Banquet	31000109189	t90plhrt90	ffd8ffe000104a46494600010200000100010000ffdb004300080606070605080707070909080a0c140d0c
12	Turkey Meal	Banquet	31000109035	t180plhrt150	ffd8ff... (77750 bytes)
13	Spring Onion Rice Noodle Soup Bowl	Simply Asia	737628066001	t180plh	ffd8ff... (188628 bytes)
14	Spicy Kung Pao Noodle	Simply Asia	854285000831	t90plh	89504e... (79027 bytes)

Foster Farms	75278950241	t45plh	ffd8ff... (281808 bytes)
Swanson	51000060327	t300plh	ffd8ffe000104a464946000101000
Cha Siu Bau	10497302204	t70plh	ffd8ff... (65356 bytes)
Tai Pei	70077004713	t370plh	ffd8ffe000104a464946000101010
Tai Pei	70077004713	t420plh	ffd8ffe000104a464946000101010
Banquet	31000180218	t120plhrt60	ffd8ff... (82760 bytes)
Banquet	31000109189	t90plhrt90	ffd8ffe000104a464946000102000
Banquet	31000109035	t180plhrt150	ffd8ff... (77750 bytes)
Simply Asia	737628066001	t180plh	ffd8ff... (188628 bytes)
Simply Asia	854285000831	t90plh	89504e... (79027 bytes)



BUT WHAT HAPPENED TO THE THERMAL CAMERA?!?

- A Software Development Kit (SDK) was promised in the summer, but it still hasn't been delivered.
- Without the camera no live temperature data is available.

MICROWAVE DEMO

QUESTIONS?