A SMARTER MICROWAVE

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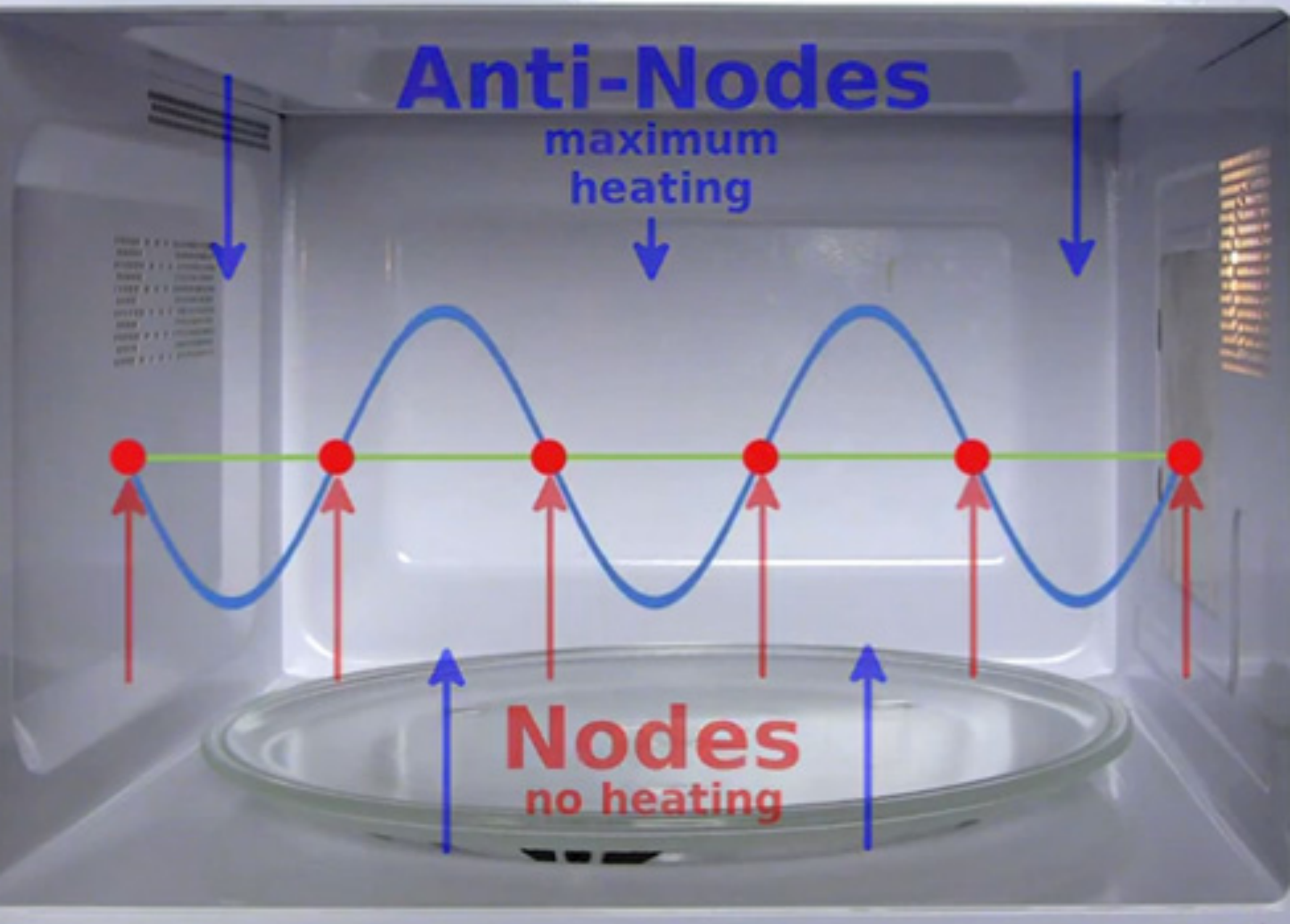
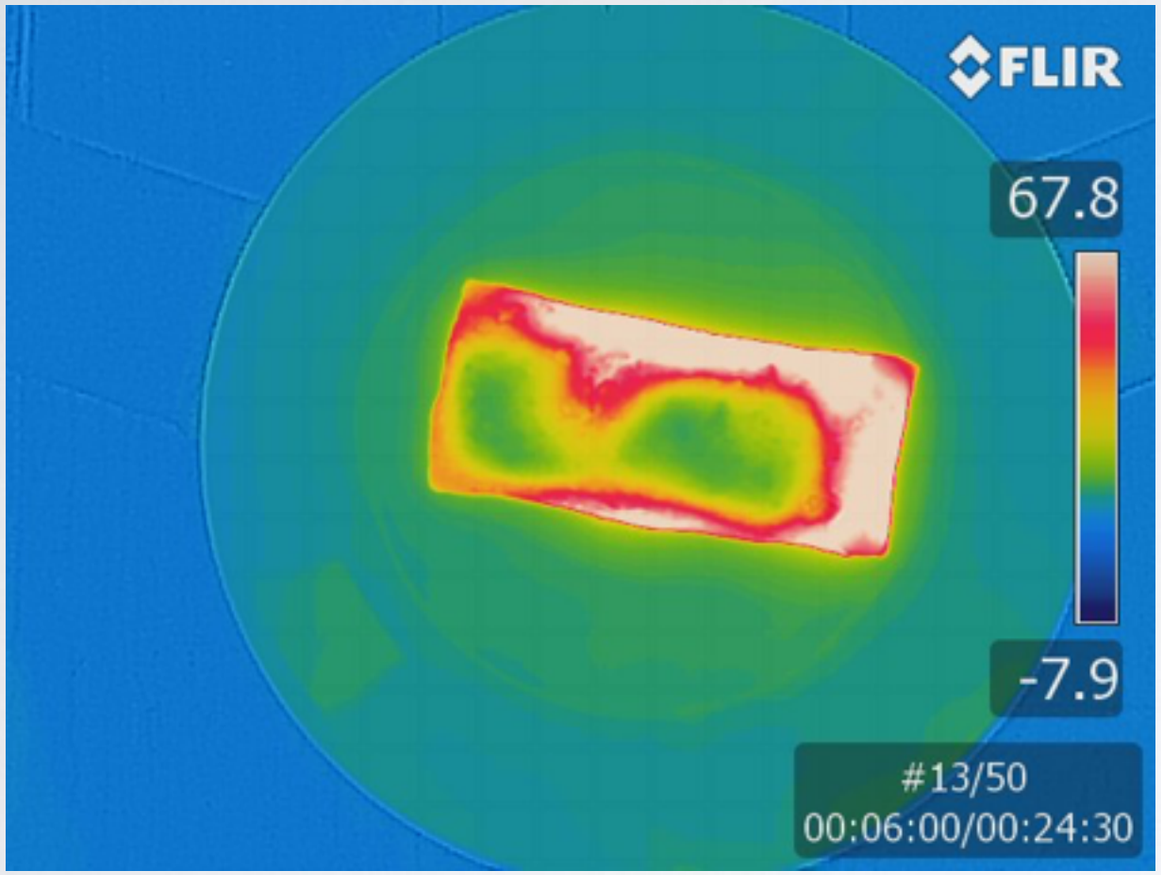
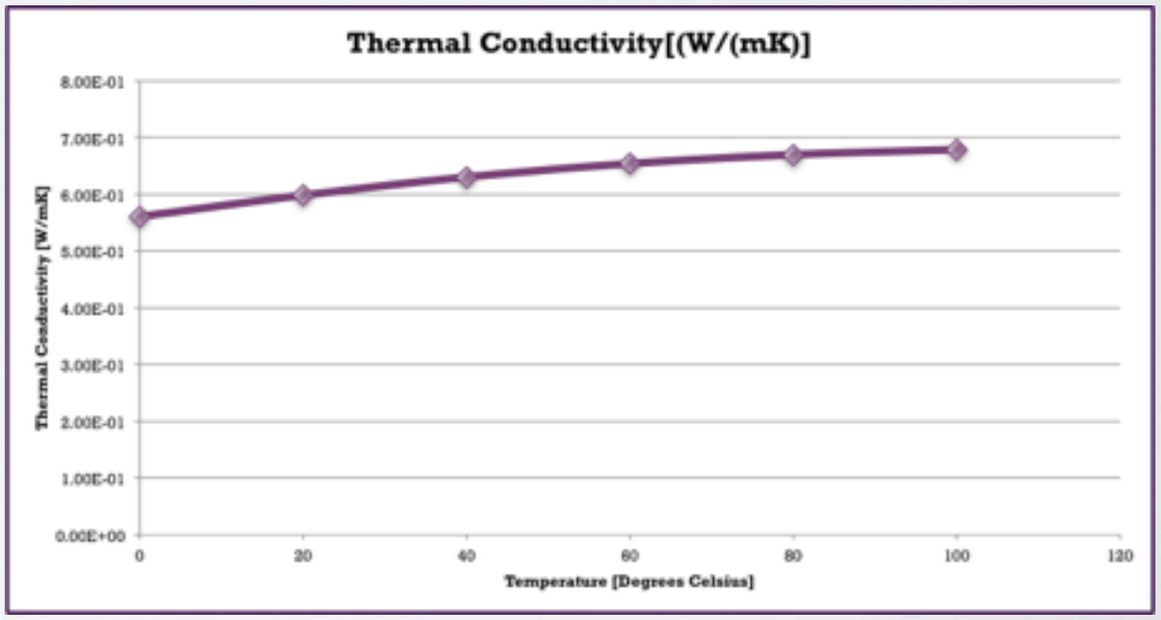
INTRODUCTION

- Age Old Problem: Lava Cheese Outside, Ice Cube in Center
- Old Solution: Nuke it!
- New Solution…


Anti-Nodes
maximum
heating
Nodes
no heating


FLIR
67.8
-7.9
#13/50
00:06:00/00:24:30


Thermal Conductivity[(W/(mK)]
8.00E-01
7.00E-01
6.00E-01
5.00E-01
4.00E-01
3.00E-01
2.00E-01
1.00E-01
0.00E+00
Thermal Conductivity [W/mK]
0
20
40
60
80
100
120
Temperature [Degrees Celsius]

EQUIPMENT NEEDED

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

STRETCH GOALS

- Use UPC (Universal Product Code) scanning to let the microwave know the type of food.

- Actively updated database of food cooking instructions queryable by the microwave.

- Use image processing on heat maps to control the microwave.

QUESTIONS?