C-54 Hometech Curriculum
Heating, Mining, and Home Automation

- Week 1

  - Why mine bitcoin?
    - Secures the Bitcoin network
      - 51% attacks
      - State of bitcoin mining pools
      - Geography of bitcoin mining pools
    - Stable Energy
      - Texas
      - Africa
        - Verunda
        - Ethiopia and GERD
        - Mini-grids
    - Profitable
      - Subsidy
      - Fees
      - Costs
        - Hardware
        - Electricity

- Week 2

  - Pools
    - Why pools in the first place?
      - Solo mining
      - Economics of pools
    - How to pick a good pool?
      - Decentralization
      - Censorship
      - Payout structure
        - PPS, PPS+, LNPPS, FPPS
    - Getting setup with a pool

- Week 3

  - Running an ASIC
    - Basic electrical info
      - What is a circuit?
      - 120V vs 240V
      - AC vs DC
      - What do watts and amps measure?
    - Setting up a machine
      - Connecting to a pool
      - Basic configuration
  - Basic troubleshooting

- Week 4

  - Energy costs
  - Heat recycling

- Week 5

  - 3d printing

- Week 6

  - Setting up a Raspberry Pi

- Week 7

  - Running a server
  - Running a bitcoin node

- Week 8

  - Home Automation
  - HASS-miner

- Week 9
  - Running a lightning node

- Week 10

  - BTCPay Server