

# 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