

Brittain Cooke
Grant Gannon
Oliver Sanchez

Stories

1) Create a device that acts as a temperature monitor for a server room:

Features:

- Read room temperature using a raspberry pi and sensors
- Periodically record, store, and display current temperature
- Show status using an led light based on temp
- show current temp values on the device using the display
- Get humidity reading from the sensors
- AC Powered
- Connected by Wifi

2) Allow a server administrator to remotely view temps and interact with the device

Features:

- Allow an admin to SSH on to the device
- create a web app to allow users to view temperature and status
- allow admin to view system logs
- be able to dump output log
- be able to modify log(add, delete, move, and search)
- be able to add and remove users from registry

3) Setup an alert system for admins if temperature exceeds limits

Features:

- Send SMS text to admin when the temperature is out of range
- Allow admin to edit the thresholds for alerts
- Allow admins to edit the users to notify for these alerts
- allow admins to customise alerts, and alert messages

4) Create a case for the device to be contained

Features:

- Make a 3D printed case to accommodate the raspberry pi and associated peripherals
 - House electronic components on a pcb to better accommodate case size restraints
 - Case will allow for physical interaction from pushbuttons to device
- 5)** Device must be able to perform adequately in atypical power conditions

Features:

- Device should be able to perform a safe shutdown in event of brown/blackout
- Device will reboot and log time it was offline for after a shutdown
- Device can send out message alerting admins of blackout and it's recorded duration
- Battery backup to ensure it can shutdown during complete blackout