

(9/12/14) Meeting Minutes:

- Wrote team Code of Conduct and established roles for each member.
 - Team leader: Michelle Hopkins
 - Lead ME: Nixon Lormand
 - Lead ECE: Kenny Becerra
 - Financial Advisor: Joe Besler
 - Prototype Lead: Jonathan Jennings
 - Web Design Chair: Alex Hull

(9/19/14) Meeting Minutes:

- Discussed design questions to ask Siemens sponsor in conference call on (9/23/14). Also established groups to work on and research subsections of the project:
 - IR Camera Selection: Michelle Hopkins, Joe Besler
 - Solar/Battery System: Michelle Hopkins, Kenny Becerra
 - Mount Design: Jonathan Jennings, Joe Besler
 - Wireless System: Alex Hull, Kenny Becerra, Nixon Lormand
 - Pan Tilt Module: Nixon Lormand, Alex Hull, Jonathan Jennings

(9/23/14) Meeting Minutes:

- Had a conference call with Siemens sponsor to clarify some design specifications for the project.

(9/25/14) Meeting Minutes:

- Finished Need Assessment to turn in on (9/26/14) and assigned Individual Design Responsibilities of Subsystems
 - IR Camera: Michelle Hopkins, Joseph Besler
 - Solar/Battery: Michelle Hopkins, Kenny Becerra
 - Mount: Jonathan Jennings, Joseph Besler
 - Wireless System: Jonathan Jennings, Nixon Lormand, Alex Hull
 - Pan-Tilt: Jonathan Jennings, Alex Hull, Nixon Lormand

(10/2/14) Meeting Minutes:

- Discussed questions and comments of staff meeting on (10/2/14).
- Delegated tasks for the Project Specification report (Due 10/10/14).

(10/9/14) Meeting Minutes:

- Finished our Project Specification report to turn in on (10/10/14).
- Established who will present at our first midterm presentation on (Due: 10/16/14), which will be:
 - Michelle Hopkins - Background Information
 - Joseph Besler - Infrared camera, Pan-Tilt, and Microcomputer specifications.
 - Kenny Becerra - Battery and Solar panels specifications
- Each presenter must post their 5 slides on (10/13/14). We also will practice the slide presentation on (10/14/14) which all members must attend to give feedback.

(10/16/14) Meeting Minutes:

- Discussed the midterm presentation and the questions and comments of faculty.
- Delegated tasks for Midterm Reports (Due: 10/24/14).
 - Each subsection (Camera, Pan-tilt, Solar Panels, Battery, Microcomputer, and Mount) must create a decision matrix.
 - Each decision matrix should include categories such as: weight, power output, durability, life time, cost, and other categories depending on the subsection.

(10/23/14) Meeting Minutes:

- Discussed how each section is doing on Midterm Report (New Due Date:10/31/14)
- Solar panels:
 - 256W panel for 20 square feet (Way too big)
 - Design to the nominal power value (instead of designing to the max)
- Pan tilt
 - Has largest power consumption of all system 35-70W
- Micro-Computer
 - Can the board take an extra 9W for camera POE (Power over Ethernet)?
 - Does it have 32 pins ?
 - What is the frequency of beagle bone?
 - What type of current does it take AC or DC?
- All Sub-Systems
 - Power Management Goal: Max 50W nominal entire system.
 - Focus on the GSU, UAT & switch yard
 - Cost: Make sure less than \$20,000
- Meeting scheduled for Sunday (10/25/14 @ 11:00 am)
 - Have selections for each subcomponent
 - Confirm proper interfaces with other subcomponents.
 - Make sure cost for the system is less than \$20,000

(10/30/14) Meeting Minutes:

- Compiled each subsection into Midterm Report (Due:10/31/14)
- Planned to meet on (11/5/14) to make power point to present on (11/13/14) and (11/6/14)

(11/5/14) Meeting Minutes:

- Working on power point presentation on (11/13/14) and preliminary presentation on (11/6/14)
 - Microcomputer, Pan-Tilt, Graphical System Design Diagram, -Nixon
 - Camera, Solar, Wireless -Alex
 - Revisited Components, System Orientation-Jon
- Microcomputer chosen: Heat treated Tiger by VisiLogic

(11/6/14) Meeting Minutes:

- Discussed Preliminary run through of power point presented to Dr. Gupta
 - Title slide:
 - Better logo resolution
 - Add an outline slide after title slide
 - Switch the title and description order in the intro slide
 - Background
 - Add more detail in background
 - talk about why we are using the wireless, solar battery system, what issues are there that makes this necessary
 - Too clustered on need statement, goal and objective slide
 - Add need statement to new background slide
 - System Diagram
 - Uses general names of system components
 - May not need inventor and may only need DC to DC convertor
 - Correction pan-tilt uses AC
 - Pan-Tilt
 - Change label: "Constraint/Requirements" to "Features"
 - Add map of systems to monitor
 - Don't add revisited topics
 - Audience has not seen first power point presentation
 - Solar Panels
 - Talk about what systems we are using (Homer)
 - System Orientation
 - Limit to only 2 slides max (less calculations and equations)
 - Gantt Chart is clustered
 - Put dates at top of chart

- Take off the time interval to work on each task
 - List the labels in a row on the side
 - Add URL of website
- Scheduled a new preliminary run through of power point on (11/12/14)
- Finish Power Point slides by Monday (11/10/14)
- Group run through at 8pm Tuesday
- Michelle presented Siemens sponsor with midterm report
 - Liked most of the report
 - Proposed new locations for SWIMS
 - Wireless System - Does it have Hart Compliance and Nert Compliance
 - 30 year lifetime - some systems may be replaced durring that time like solar/batteries
 - Power consumption - system does not have to run 24/7 can run 5 cycles per hour
 - Reduces Batteries to 2, Solar to 50W
- Alex needs Intro for Siemens Antenna and bio of members for website.

(11/20/14) Meeting Minutes:

- Dr. Oates will provide a FLIR A635sc infrared camera
- Not sure Dr. Oates will allow us to use the camera out of lab for testing.
- Will be talking to him tomorrow (11/21/14)
- 20% of power of component for board = heat dissipation (1w thermal)
- Still need Inverter
- With prototype will be collecting weeklong data of outdoor data
- USB: voltage based and HART: current based which you need USB to HART than HART to Wireless HART.

Budget for prototype:

- Batteries about \$100 apiece
 - Prototype for 1 day of battery life.
 - Save \$250 by using only one battery in prototype
- Inverter \$50
- May ask for more \$1,500 for pan-tilt module
- Need to buy or make Enclosure
- Current budget at \$1,700
- Versologic: \$1,000
- New camera: \$1,500