GNG1103

Engineering Design

Deliverable E

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Project Schedule and Cost

Tasks, Time, and Assignments

Obtaining materials (solar panels and wires), 1-2 days

-Josay will get wires

-Aaron will obtain solar panel

Mapping out schematic for solar circuit, 1-2 days

-Thomas, Kevin, and Angela will map

Verify schematic, 1-2 days

-John will verify and check and make modifications if needed

Clarify to construction team and automation team about design (including placements of outlets and wires), 1 day

-Justin will contact construction team, take note of their plans and communicate to rest of group if any changes need to be taken into consideration

Attach solar panel to roof and place battery underneath space of roof, 1-2 days

-Aaron and Justin will attach the panel

-Thomas will place battery underneath the space of roof

-They will all also check placement of wires and accessibility to the correct walls

Placement of connectors and setup of wiring to the house, 2-3 days

-Angela and John will place connectors in indicated positions on wires and verify positions

Arrange series circuit for ceiling lights

-Josay and Kevin will set up the circuit for the lighting

Test Prototype 1, 1 day

-Justin and Aaron will take note of functionality and provide feedback on the testing

Arrange and modify for prototype 2 based on feedback, 1 day

-All members will participate

Build prototype 2, 3-5 days

All members will participate

Run Test for prototype 2, 1 day

Kevin and Thomas will take note of functionality and provide feedback on the testing

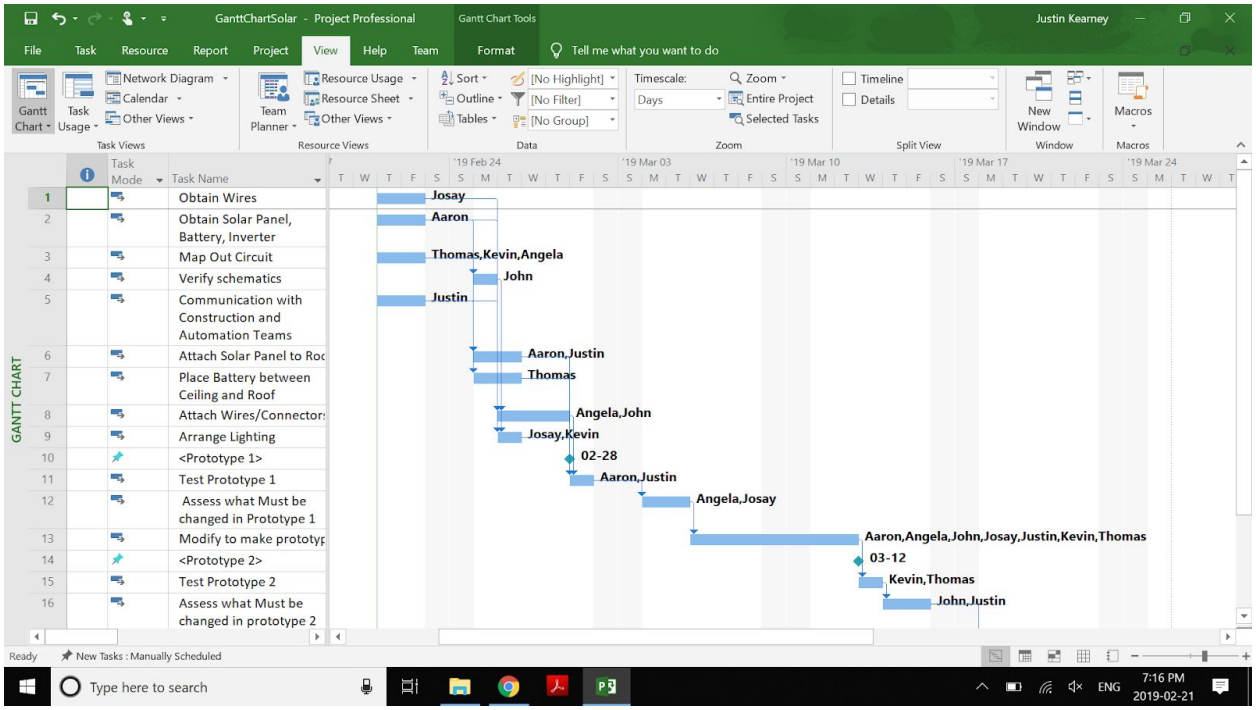
Arrange and modify for prototype 3 based on feedback, 1 day

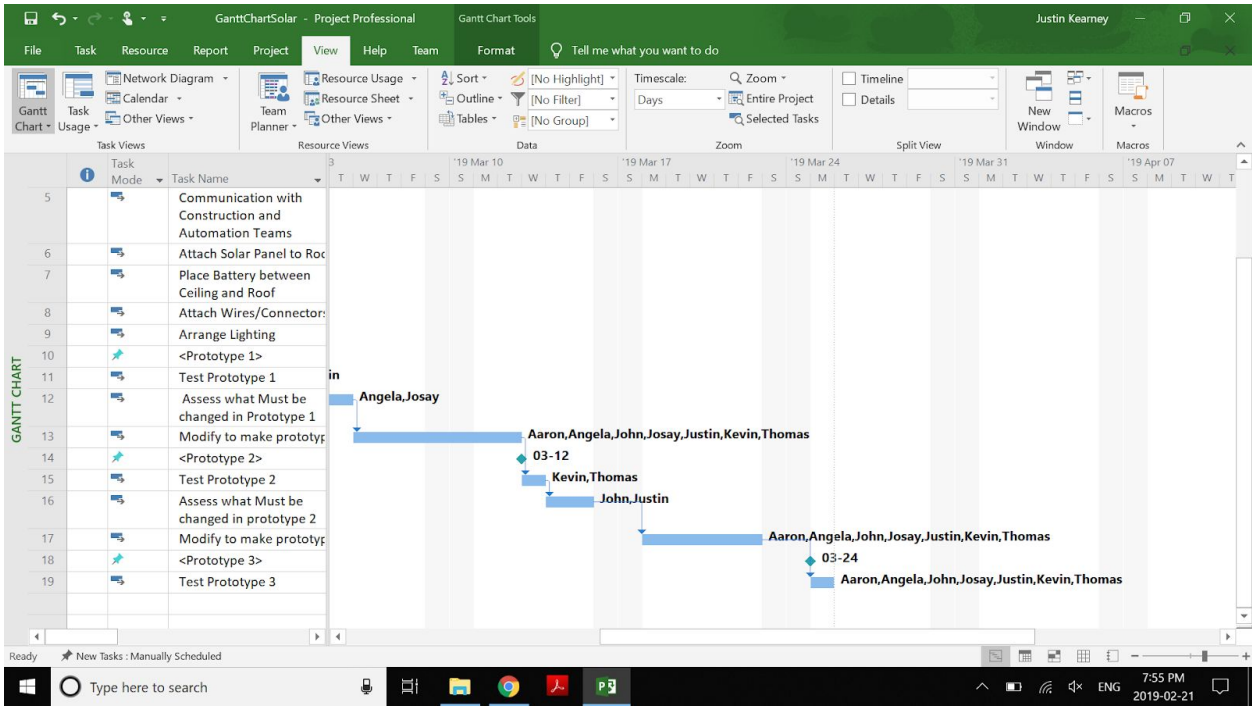
-All members will participate

Build prototype 3, 3-5 days

All members will participate

Gantt Chart





Significant risks and associated contingency plans to mitigate the risks

1- Causation of fire or exposed wiring that could be harmful.

Inspect the wiring and connections beforehand and possibly apply electrical tape in areas of concern and provide the client with information regarding safety precautions that should be known whilst persons are living in the house.

2- Not enough materials to carry out desired plans.

Order a little bit extra materials then needed to make up for mistake or problems.

3- Running behind.

Make sure to be on top of things as a group and finish tasks early in order to provide cushion room so that we are not scrambling last minute causing us to provide a product that is not well put together.

4- Conflict with other teams possibly causing us to not be able to carry out our desired plans thus setting us behind.

Communicate often with other teams and find mutual ground in order to satisfy everyone's needs and make changes in necessary.

5- Design not functioning.

Have multiple backup plans and make sure to do as many tests as possible on original design in order to be certain of its functionality.

Cost and Budget

Item	Unit Cost	Quantity	Cost
Solar Panel	Provided	1	0.00$
Battery	Provided	1	0.00$
Inverter	Provided	1	0.00$
Connecting Wires	10.00$	2	20.00$
Heating Unit	50.00$	1	50.00$
Toaster Oven	30.00$	1	30.00$
Total			100.00$

We may have to split some budget with the automation team because we have expensive appliances.