

# Deliverable G – Inclusive Bike project

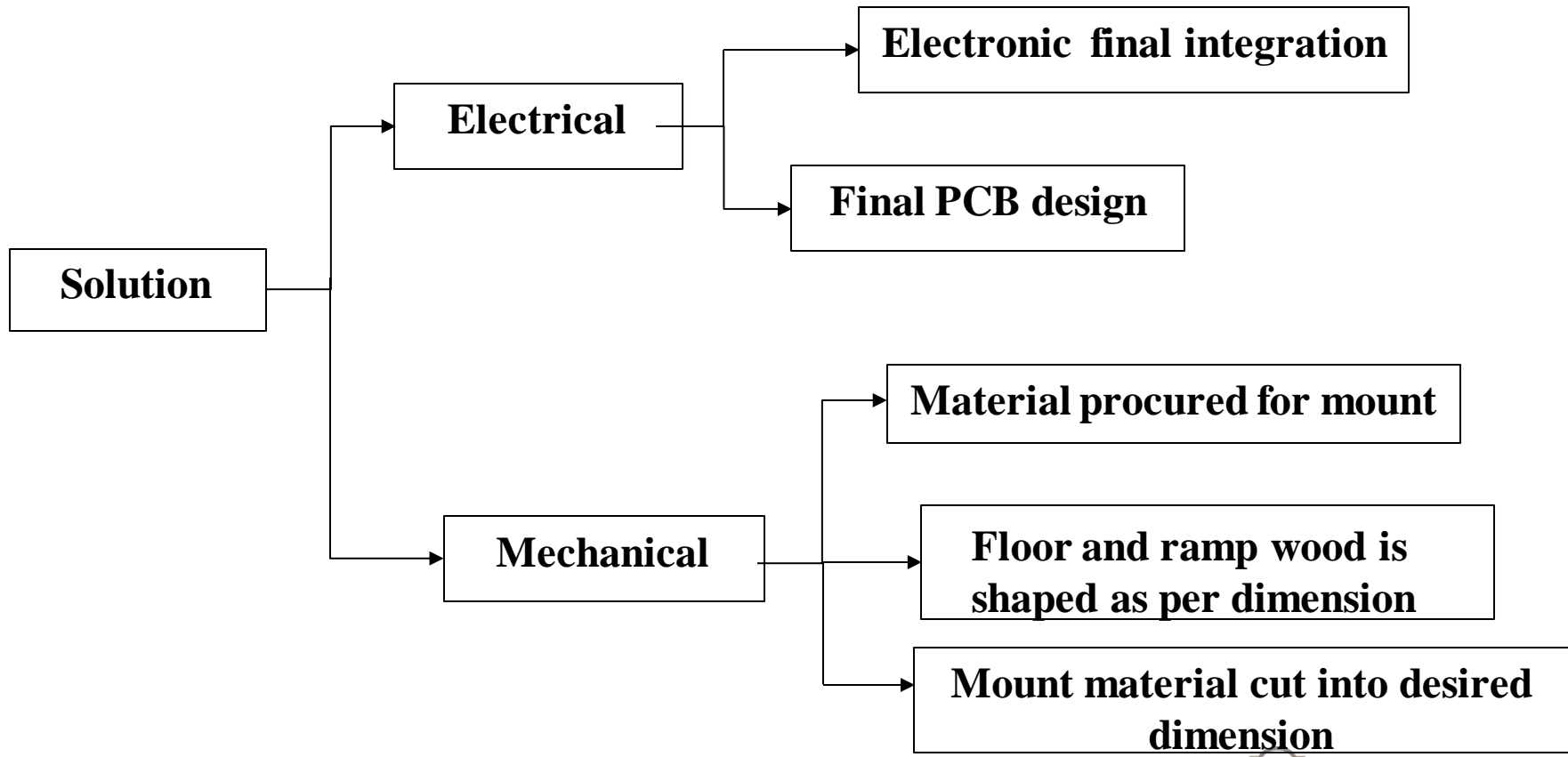
Final Prototype and Design Day Preparation

Presented by Sachin Kasbekar

## Our Team

- Sachin Kasbekar (Presenter)
- Gaurang Lele
- Raghav Kaushik Vagata Umesh
- Kristina Prasad
- Jonathan Horton

# Final Prototype Updates



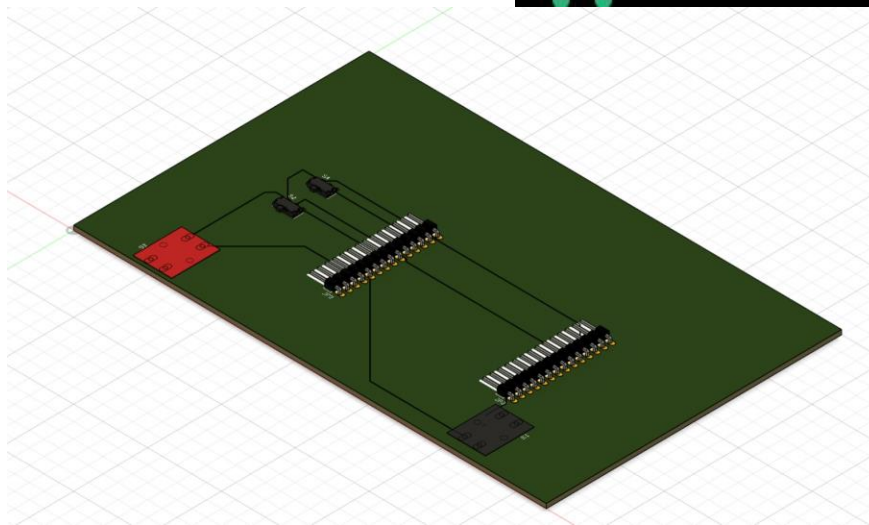
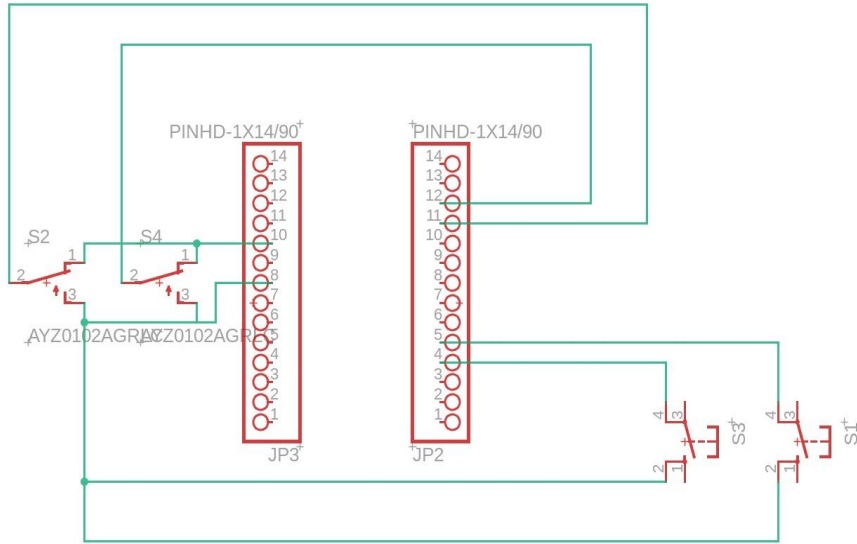
## Final Prototype Updates

- **Mechanical Updates:**
  - We have made a strong and secured mount to connect the bike with the carriage
  - We have shaped the wood as per the dimension of the floor and ramp
  - The material for the mount is procured
  - The material is shaped and machined to desired shape and dimension.
- **Electrical Updates:**
  - The final wire connections are made and finalised
  - The PCB layout and design is ready in software

# Mechanical Updates



# Electronic Updates



## Future Plans

- **Mechanical**
- We will be welding all the mount components together and make the final mount
- We will be making two support plates to add reinforcement to the wooden board
- We will drill the required holes on the floor and make it ready for assembly
- We will be assembling the floor and ramp together
- We will be mounting Fixing the anchors for the straps as per the available wheelchair.
- Design and manufacture the housing for the electrical system
  
- **Electrical**
- We are planning to manufacture the final PCB
- Soldering the components on the PCB
- We are planning to mount the final electronics on the bike

# Future Plans with project

- **Scalibility-**
- We can come up with user defined designs for fulfilling individual customer demands including varying physical abilities and preferences and also incorporating robust materials and efficient manufacturing processes while maintaining affordability and sustainability in production
  
- **Quality**
- Improving the quality of inclusive bikes by rigorous testing to ensure durability, ergonomic design for comfort, incorporating user feedback for continuous refinement, and maintaining quality check protocols.
  
- **Sustainability**
- Sustainability will be obtained by involving utilization of eco-friendly materials, minimizing carbon emissions in manufacturing and distribution, promoting active transportation for reduced environmental impact, and prioritizing recyclability and renewable energy sources.
  
- **Usability**
- We can increase usability of inclusive bikes involves designing intuitive controls, incorporating versatile adjustments for various users, providing clear instructions and educational resources, ensuring compatibility with accessories, and offering accessible maintenance and repair services.



# Design Day Preparation

- We will have the Final working model ready for demonstration on design day
- We will demonstrate the communication model which which will be used for communication between the rider and the passenger
- We are making our design day pitch ppt ready for presenting on design day
- Each member is working on their speciality skill to to make sure the carriage is perfectly ready for use

**Thank You**