

P.E.R.C.H Team Meeting

Meeting Minutes

September 12, 2013

I. Call to order

First regular meeting of the P.E.R.C.H Team at 2:02 pm on September 12, 2013 at GJ 108.

II. Roll call

Cole conducted a roll call. The following persons were present: Cole, Jordan, Spencer, Sydney, Dr Beyerlein, and Dr Odom

III. Approval of minutes from last meeting

No minutes prior to meeting.

IV. Open issues

- a) Discuss issue
 - Orchard on slope (sides of hills)
 - Get rid of ladders/safety
 - Workers carrying bags
- b) Preliminary drawings and CATIA current draw up
- c) Still need team name – P.E.R.C.H – Picker Enhancement Rover for Careful Harvesting

V. New business

- a) Computer draw up. Check with client to see if we are on right track
- b) Will be here for homecoming football game...maybe
- c) Pick time for a field trip
- d) Make Agenda for 17-Sept-2013

VI. Adjournment

Meeting adjourned the meeting at 4:30 P.M.

Team P.E.R.C.H Meeting

Meeting Minutes

September 18, 2013

I. Call to Order

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:36 P.M. on September 17, 2013 at GJ 108.

II. Roll Call

Cole conducted a roll call. The following persons were present: Cole, Sydney, Spencer, Jordan, David, and Dr. Beyerlein.

III. Approval of Minutes from last Meeting

Cole read the minutes from the last meeting. The minutes were approved as read.

IV. Open Issues

- a) Action Items
 - Everyone – Questions
 - Budget - ~\$5000
 - Bin Dimensions – 4'x4'x2' (Confirm)
 - Tree Rows ~12 ft wide
 - Driven machine or pull behind tractor – TBD by team
 - Number of Pickers – 2-4
 - Both Sides at once – TBD
 - Spencer and Cole – Uploaded Solidworks files into team Dropbox
 - Link on computer: Engineering-Senior Design-Course folder-ME 425 Spring 2013-Orchard Harvester

V. New Business

- a) Shop training – Thursday (9/19) @ 2:00 P.M. Location, Machine Shop
- b) Action Items
 - Contact Joe Rumble, Introduce ourselves – Spencer
 - Look at purchasing procedures – Jordan
 - Create and organize team binder – Cole

- Create Solidworks Environment for testing – Spencer, Sydney, and Cole
 - Trees
 - Ladder
 - Manikin
- Arrange Visit to Bishop’s Orchard – ???
- Research – All
 - OSHA Standards for orchards...
 - Picking/Training...
 - Time Spent Analysis...
 - Others...

VI. Adjournment

- a) Sydney adjourned the meeting at 3:20 P.M.
- b) Minutes submitted by: Cole

Team P.E.R.C.H Meeting

Meeting Minutes

September 24, 2013

I. Call to Order

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:30 P.M. on September 24, 2013 at GJ 108.

II. Roll Call

Cole conducted a roll call. The following persons were present: Cole, Sydney, Jordan, David, and Dr. Beyerlein.

III. Approval of Minutes from last Meeting

Cole read the minutes from the last meeting. The minutes were approved as read.

IV. Open Issues

- a) Overview of Phone Interview with Joe
- b) Report on Action Items
 - Jordan – checked with molly for purchasing. Looked at purchasing procedures
 - Cole – Found a Manikin Solidworks. Compiled a Team portfolio binder.
- b) Shop Orientation Completed

V. New Business

- a) Assign Action Items
 - Cole – Contact Bishops orchard. Measurement of trees and ladders for 3D environment. Make flat and sloped variations
 - Folder for team on shared drive
 - Sydney – call WSU orchard. Arrange a visit. Problem statement
 - Spencer – ask Joe to send us some pictures of pickers using ladders/sloped ground. Possibly some video clips of worker setting ladder, climbing ladder, picking, unloading, relocating ladder and repeating process
 - Jordan – generate list of general specs

- b) Make a problem statement – define problem and what is looked for in solution
 - Picker productivity and safety
 - Maintaining or improving product quality
 - Boundaries of what will be accomplished
 - Look at problem statements on website: seniordesign.engr.uidaho.edu

VI.Adjournment

- a) Sydney adjourned the meeting at 2:59 P.M.
- b) Minutes submitted by: Cole

Team P.E.R.C.H Meeting

Meeting Minutes

October 22, 2013

I. Call to Order

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:30 P.M. on October 22, 2013 at GJ 108.

II. Roll Call

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, David, and Dr. Beyerlein.

III. Approval of Minutes from last Meeting

Cole read the minutes from the last meeting. The minutes were approved as read.

IV. Open Issues

- a) Midterms...gave B across the board because there was not much to go on
- b) Report on Action Items

V. New Business

- a) Assign Action Items
 - Cole – Implement “Bin Runner” idea. Bring Portfolio with requirements (2 weeks)
 - Sydney – Call for pricing/donations
 - Spencer – New Idea of frame
 - Jordan – start solution/alternative matrix
 - All – Get wikipage up and running

VI. Adjournment

- a) Sydney adjourned the meeting at 3:15 P.M.
- b) Minutes submitted by: Cole

Team P.E.R.C.H Meeting

Meeting Minutes

November 5, 2013

I. Call to Order

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:36 P.M. on November 5, 2013 at GJ 108.

II. Roll Call

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, David, and Dr. Beyerlein.

III. Approval of Minutes from last Meeting

Cole read the minutes from the last meeting. The minutes were approved as read.

IV. Open Issues

- a) Report on Action Items
 - Spencer made a “Steel Tube ” Frame version
 - Cole Inserted the bin runner in the “steel tube” frame version of the perch
 - Jordan got information for purchasing
 - Sydney research fruit transport.
- b) Design Review call with Joe Rumble
 - Tuesday or Thursday at 2:30 PM
 - Make a PowerPoint to send to Joe
- c) Pitch Competition is Wednesday and Thursday
 - Cole and Cody will be attending the competition

V. New Business

- a) Assign Action Items
 - Cole – Implement Solidworks ladder.
 - Sydney – Fruit Transportation – slide with flaps/tube with baffles. Work on wikipage
 - Spencer – Work with Cole to implement Solidworks ladder. Contact Joe for Design review
 - Jordan – Work on PowerPoint

- b) Portfolio review
- c) Wikipage Review

VI.Adjournment

- a) Sydney adjourned the meeting at 3:15 P.M.
- b) Minutes submitted by: Cole

Team P.E.R.C.H Meeting

Meeting Minutes

November 12, 2013

I. Call to Order

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:35 P.M. on November 12, 2013 at GJ 108.

II. Roll Call

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, David Eld, and Dr. Beyerlein.

III. Approval of Minutes from last Meeting

Cole read the minutes from the last meeting. The minutes were approved as read.

IV. Open Issues

- a) Overview of Pitch Competition
- b) Report on Action Items
 - Cole – Organized portfolio
 - Sydney – Left the woosh idea behind. Looking at conveyor which is more within our range for the project.

V. New Business

- a) Assign Action Items
 - All – Prepare for design review
 - Cole – Detailed design of ladder system
 - Sydney – model fruit transport in Solidworks
- b) Attend Other Design review
 - Robot workstation at 3:30 on Wednesday in the ME Conference Room

VI. Adjournment

- a) Sydney adjourned the meeting at 2:52 P.M.
- b) Minutes submitted by: Cole

Team P.E.R.C.H Meeting

Meeting Minutes

November 19, 2013

I. Call to Order

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:30 P.M. on November 19, 2013 at GJ 108.

II. Roll Call

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, David Eld, and Dr. Beyerlein.

III. Approval of Minutes from last Meeting

Cole read the minutes from the last meeting. The minutes were approved as read.

IV. Open Issues

- a) Design Review
 - Focus on moving ladder and maybe bin management
 - Update slope Spec to 20% not 20 degrees
- b) Report on Action Items
 - Cole – Hevi-Roller System and door hangar for ladder slide

V. New Business

- a) Team member Citizenship Assessment – Due Nov 22nd
- b) Assign Action Items
 - Cole – Ladder Actuation Solidworks
 - Sydney – Wikipage
 - Spencer – Ladder design. Find something useful to buy
 - Jordan – Brainstorm Ladder designs

VI. Adjournment

- a) Sydney adjourned the meeting at 3:15 P.M.
- b) Minutes submitted by: Cole

Team P.E.R.C.H Meeting

Meeting Minutes

January 21, 2014

I. Call to Order

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:05 P.M. on January 21, 2014 at GJ 108.

II. Roll Call

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, David Eld, and Dr, Beyerlein.

III. Approval of Minutes from last Meeting

Cole read the minutes from the last meeting. The minutes were approved as read.

IV. Open Issues

- a) Future meetings will be held at 1:15 P.M.
- b) Solidworks Proof of concept
- c) Full scale model for proving mechanical systems
- d) Prototype by April
- e) Build
 - Frame w/wheels
 - Scissor lift
 - Maybe bin management if possible

V. New Business

- a) Assign Action Items
 - Cole – Bin Management (Side pick up and front/back pick up)
 - Sydney – Platform and scissor lift research
 - Spencer – Frame analysis
 - Jordan – research Leveling system products

VI. Adjournment

- a) Sydney adjourned the meeting at 1:30 P.M.
- b) Minutes submitted by: Cole

Team P.E.R.C.H Meeting

Meeting Minutes

January 28, 2014

I. Call to Order

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:15 P.M. on January 28, 2014 at GJ 108.

II. Roll Call

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, David Eld, and Dr, Beyerlein.

III. Approval of Minutes from last Meeting

Cole read the minutes from the last meeting. The minutes were approved as read.

IV. Open Issues

- a) Review of action items
 - Sydney – Platform scissor lift. Smaller and less expensive. Would need to install guard rails. Looked into OSHA regulations for scaffolding. Needs to hold 4x the expected weight.
 - Cole – Bin pick up. Forks would be raised by hand and gravity would lower the forks and keep them in place. Hydraulics would lift the frame and bin up several engines. Could build a small table top proof of concept.
 - Spencer – Built scissor lift prototype on Solidworks. Not sure yet how to mount hydraulics or how to level the platform.
 - Jordan – Emailed a project engineer for semi- and fully –automatic leveling jacks for leveling platform. Capacity is large enough for our project (6-22,000). He will get more information on Wednesday.
- b) Invite Russ and Dr. Odom to Detailed Design Review
- c) Look into used trailer axle or something similar for moving frame

V. New Business

- a) Assign Action Items
 - Cole – Integrate Bin management into frame. Figure out mechanics for operation
 - Sydney – Continue research of scissor lift, look for used one, and update wikipedia.
Work on FEA for frame
 - Spencer – Integrate Scissor lift onto frame. Figure out how to level platform.
Perform FEA for frame with anticipated stresses
 - Jordan – Continue communication with project engineer for specs for leveling system. Work on getting a quote

VI. Adjournment

- a) Sydney adjourned the meeting at 1:40 P.M.
- b) Minutes submitted by: Cole