

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

September 12, 2013

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:02 P.M. on September 12, 2013 at GJ 108.

### **II. Roll Call**

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

### **III. Approval of Minutes from last Meeting**

No previous Meeting Minutes

### **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**

- a) Sydney adjourned the meeting at 4:30 P.M.
- b) Minutes submitted by: Cole

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

September 17, 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

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## *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](http://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

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## *Meeting Minutes*

October 1, 2013

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:34 P.M. on October 1, 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
  - Went to bishops orchard found an orchard ape. Old vs new
  - Solid model trees and orchard
  - Sydney – electric mini excavator

### **V. New Business**

- a) Assign Action Items
  - Cole – Bins and resize machine to more reasonable size
  - Sydney – Solidworks orchard
  - Spencer – Sloped orchard on Solidworks. Set up meeting with Joe
  - Jordan – learn about purchasing. Look into combine self leveling
- b) Meet with Joe on Saturday at 11:30 A.M. in GJ 108
  - Meet Thursday and discuss some questions to talk with Joe about

### **VI. Adjournment**

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

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

October 8, 2013

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 2:34 P.M. on October 8, 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) Overview of meeting with Joe
- b) Report on Action Items

### **V. New Business**

- a) Assign Action Items
  - Cole – Virtual Orchard – center of gravity/stability on slope/ Get stuff ready for snapshot
  - Sydney – breakdown of daily work and sub problems
  - Spencer – Send thank you to joe. Virtual Orchard – center of gravity/stability on slope/ Get stuff ready for snapshot
  - Jordan – morphological chart
- b) John Deer Thursday @ 2:30-3:00
  - Talk to someone in services
- c) Spencer is going to Wikipages meeting as the webmaster

### **VI. Adjournment**

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

# Team P.E.R.C.H Meeting

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## *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

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## *Meeting Minutes*

October 29, 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 29, 2013 at GJ 108.

### **II. Roll Call**

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

### **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 “Sheet Metal” Frame version
  - Cole Implemented the “bin runner” and made a guide rail for the PERCH
  - Jordan and Sydney updated the Wikipage
  - Jordan started a decision matrix
  - Sydney emailed woosh about transport tubing. Has not heard back yet.
- b) Discussed ladder/platform for picker positioning
- c) Cody got the team signed up for the “elevator pitch” competition
  - Cole will be the primary team member in the competition. Cole will update the team on the competition status.

### **V. New Business**

- a) Assign Action Items
  - Cole – Compile Portfolio. Detailed design of ladder mechanism and bin runner
  - Sydney – Fruit Transportation – slide with flaps/tube with baffles
  - Spencer – Detail to frame. Use square or rectangle tubing. Email Joe about contacting him for Design Review.
  - Jordan – Continue working on solution/alternative matrix

- 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

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## *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 wikipeage
  - Spencer – Work with Cole to implement Solidworks ladder. Contact Joe for Design review
  - Jordan – Work on PowerPoint

## **VI.Adjournment**

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

# Team P.E.R.C.H Meeting

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## *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

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## *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

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## *Meeting Minutes*

December 3, 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 December 3, 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) Report on action Items
  - Spencer – Degrees of freedom for ladder system, platform idea
  - Sydney – Wikipage update
  - Jordan – Compile information for snapshot
  - Cole – Ladder system slide and swivel

### **V. New Business**

- a) Assign Action Items
  - Cole – Ladder Slide
  - Sydney – Platform Idea
  - Spencer – Platform Idea
  - Jordan – Research Scissor lift
- b) Buy a ladder for testing in design area or in arboretum

### **VI. Adjournment**

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

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

December 10, 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 December 10, 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) Report on action Items
  - Spencer – Platform Idea
  - Sydney – Platform Idea
  - Jordan – Research Scissor lift
  - Cole – Ladder Slide

### **V. New Business**

- a) Assign Action Items
  - Cole – Flow Chart for ladder operation. Update of portfolio binder by early next week.
  - Sydney – Update Wikipage
  - Spencer – Flow Chart for Platform Operation
  - Jordan – Fruit to bin. Bag vs chute
- b) Explore Sensor and actuation system
- c) Possible 2<sup>nd</sup> design review with Joe early next semester

### **VI. Adjournment**

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



# Team P.E.R.C.H Meeting

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## *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

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## *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

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

February 4, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:16 P.M. on February 4, 2014 at GJ 108.

### **II. Roll Call**

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, David Eld, Dr. Odom 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 – Worked on wikipage. Updated designs and updated problem specs. Rename page to “Orchard Picker Positioning Platform”
  - Cole – Decided to use 4 acme screws to adjust mechanism up and down. Chain driven so only need one drive motor.
  - Jordan – Communicating with company called Power Gear. 5’x2’ platform area. Weight was 1500 lb. quote by the end of the week
  - Spencer – found several lift tables. Needs to look at used one and get more information such as operation type (electric, hydraulic) and height.
- b) Choose Scissor lift -> Design Frame around scissor lift ->
- c) Think about switching to all manual controls. Manual scissor lift (hand crank, hand drill motor). One jack to level one way only (front/back OR side/side)
- d) Finalized frame design by snapshot should give enough time to be built
- e) Work on a bill of materials for simplified design

## **V. New Business**

- a) Assign Action Items
  - Cole – Detailed design and parts list for building bin pick up
  - Sydney – Scissor lift and frame BOM
  - Spencer – Scissor lift and frame BOM
  - Jordan – Draw up frame with hinge and single piston for front and back tilt

## **VI. Adjournment**

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

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

February 11, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:20 P.M. on February 11, 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 – researched rails and kick plates
  - Cole – created parts for bin pick up and designed acme thread actuation
  - Jordan – Paperwork for purchasing lift
  - Spencer – Worked on creating a running BOM on excel
- b) Spencer and Sydney talked to BJ at facilities. Got some pointers for building frame. Materials \$700-\$800 Labor \$1000. About a 5 week lead time.
- c) Notify expo personnel of size of machine for planning/where it is going to go

## V. New Business

- a) Assign Action Items
  - Cole – make an animation of bin pick up
  - Sydney – scissor lift experiment. Safety coordinator
  - Spencer – Make animation of scissor lift
  - Jordan – order scissor lift and hand crank
- b) Need to set up a detailed design review. Talk to Joe about what he wants to do after we get done (another design team, work on project himself...etc) long term plan.
  - Invite Russ and Dr. Odom
  - Design Review at 1:15 in the mindworks room
- c) Logbooks due Tuesday after design review

## VI. Adjournment

- a) Sydney adjourned the meeting at 1:48 P.M.
- b) Minutes submitted by: Cole

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

February 25, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:17 P.M. on February 25, 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 – Created some test ideas
  - Cole – Showed team rough draft of expo entry form. Got necessary changes to make
  - Jordan – Received scissor lift and hand jack
  - Spencer – modified frame and scissor lift. Put in angle braces
- b) We got the scissor lift in and took a few minutes to look at it and discuss

### **V. New Business**

- a) Assign Action Items
  - Cole – Submit expo project entry. Simplify bin pick up for proof of concept
  - Sydney – Go over specs. Clarify specs if needed
  - Spencer – Talk to Russ for clamps to use for testing. Mail Joe Post card and invite him to expo
  - Jordan – buy and pick up sand and 2x6 for testing.
  - All – Experiment with scissor lift
- b) Testing start Wednesday (2/26) at 9:30 am

### **VI. Adjournment**

- a) Sydney adjourned the meeting at 2:00 P.M.
- b) Minutes submitted by: Cole



# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

March 4, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:18 P.M. on March 4, 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
  - Cole – make simplified bin pick up mechanism. Met with Cody's business group for business plan. Separate Advanced model and prototype model
  - Jordan – buying materials today (3/4) since we did not have space in JML last week
  - Spencer – Animation of Solidworks. Met with Cody's business group for business plan competition
- b) Space at JML now. Check it out today (3/4) and testing tomorrow (3/5)
- c) Frame to facilities before spring break

### **V. New Business**

- a) Assign Action Items
  - Cole – Drawing for frame. Finish designing simple bin pick up. Possible drawing also
  - Sydney – Update specs (Present in prototype vs present in solid model)
  - Spencer – Update frame. Drawing for frame
  - Jordan – Pick up materials. Test

### **VI. Adjournment**

- a) Sydney adjourned the meeting at 1:34 P.M.
- b) Minutes submitted by: Cole

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

March 11, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:18 P.M. on March 11, 2014 at GJ 108.

### **II. Roll Call**

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, 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
  - Cole – Complete bin pick up design. Worked with spencer on frame braces
  - Sydney – made a timeline for rest of semester. Reviewed specs and updated them for prototype vs model.
  - Spencer – Started Drawing package. Added braces suggested by Dr. Odom
- b) Spencer showed an article that Blueline is making a similar product. Does not self level.
- c) Overview of testing – Customized scissor lift needed.
- d) Purchase whole wheel/jack assembly
- e) Fruit bin will be coming weekend after spring break (3/29)

### **V. New Business**

- a) Assign Action Items
  - Cole – Rename Bin Pick Up Parts, start part drawings, and finish part drawings by Wednesday 3/26.
  - Spencer – Meet with BJ, Russ, Sydney, and Dr. Beyerlein about the frame. Turn frame drawings in for a quote.
  - Jordan – Order new jacks with wheels
- b) Mini-meeting with Russ and Dr. Odom on Thursday @1:15 P.M.

## **VI. Adjournment**

- a) Sydney adjourned the meeting at 1:34 P.M.
- b) Minutes submitted by: Cole

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

March 25, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:18 P.M. on March 25, 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
  - Cole – Put part numbers on bin pick up parts
  - Sydney – Got drawings to BJ at facilities
  - Spencer – Met with Russ to have drawing verified. Got drawings to BJ at Facilities.
  - Jordan – Got Jacks ordered. Arrived yesterday.

### **V. New Business**

- a) Assign Action Items
  - Cole – Finish drawing for bin pickup. Work on Final Design Solidworks model
  - Sydney – Start on design report
  - Spencer – Figure out quote for frame. Design report
  - Jordan – Order form for frame quote. Order parts for bin pickup. Find new space in JML

### **VI. Adjournment**

- a) Sydney adjourned the meeting at 1:33 P.M.
- b) Minutes submitted by: Cole

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

April 1, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:18 P.M. on April 1, 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
  - Cole – Finished drawing for bin pick up and gave it to BJ at facilities for a quote
  - Sydney – Started Design report
  - Spencer – Fill team in on business team progress.
  - Jordan – Concept of platform extension ideas
- b) Spencer and Cole figured out how to attach scissor lift to frame
- c) Space has been figured out at JML for storage of machine
- d) Fruit bin is now at JML

### **V. New Business**

- a) Assign Action Items
  - Cole – Mount Scissor Lift. Work on final design solid model.
  - Sydney – Continue working on design report. Start solid modeling fruit transport system
  - Spencer – Solid model platform. Mount Scissor Lift
  - Jordan – Help Sydney with design report
- b) Need to talk to paint people

### **VI. Adjournment**

- a) Sydney adjourned the meeting at 1:32 P.M.
- b) Minutes submitted by: Cole

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

April 8, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:19 P.M. on April 8, 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
  - Cole – Mount scissor lift with Spencer. Add a member and drill some holes.
  - Sydney – Worked on design report. Made safety railing on Solidworks final design.
  - Spencer – Ideas of platform swing arm. Mount scissor lift to frame. Update drawings.
  - Jordan – Working on concepts considered section of design report
- b) Talk to the paint shop

### **V. New Business**

- a) Assign Action Items
  - Cole – Check on quote for bin pick up. Work on final design of fan and...
  - Sydney – Continue working on design report
  - Spencer – Talk to facilities about added items. Work on final design of platform
  - Jordan – Finish concepts considered of design report. Start concepts selected

### **VI. Adjournment**

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

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

April 15, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:13 P.M. on April 15, 2014 at GJ 108.

### **II. Roll Call**

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, 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
  - Cole – Got machine shop straightened out on drawing. Got meeting minutes to Sydney for wiki page. Got a picture of bin pick up to Jordan for design review.
  - Sydney – Continued working on design report. Wrote a cover letter for Joe to go with design report.
  - Spencer – Got machine shop straightened out on drawing
  - Jordan – Got quote for frame and bin pick up to BJ. All on one work order. Concepts considered done. Started concepts selected.
- b) Frame and bin pick up should be ready by end of the week or early next week
  - Install scissor lift to frame
- c) Start rough draft of poster

### **V. New Business**

- a) Assign Action Items
  - Cole – Final design solid model of fan and wheel jacks
  - Sydney – Continue working on design report
  - Spencer – Modify drawing package. Re-assemble scissor lift.
  - Jordan – Design report. Concepts selected
  - TEAM – Get frame to JML

## **VI. Adjournment**

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



# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

April 22, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:13 P.M. on April 22, 2014 at JML 83.

### **II. Roll Call**

Cole conducted a roll call. The following persons were present: Cole, Spencer, Sydney, Jordan, 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
  - Cole – Helped Spencer assemble some of the frame. Assembled the scissor lift and set it on the frame. Worked on final Solidworks model.
  - Sydney – Continued working on design report
  - Spencer – Got frame to JML. Worked with Cole to assemble some of the parts. Assembled the scissor lift and set it on the frame
  - Jordan – Continued working on the design report

### **V. New Business**

- a) Need to get done this week
  - Weld the rest of the bin pick up.
  - Rough draft of expo poster
  - Finalize wikipage
  - Design report
  - Bolt scissor lift
  - Presentation.

b) Assign Action Items

- Cole – Get bin pick up welded. Work on fan design for final Solidworks model. Get scissor lift attached to frame
- Sydney – Paint frame. Complete wikipage.
- Spencer – get frame welded. Get Scissor lift attached to frame
- Jordan – Buy rope and spray paint. Paint frame

## **VI. Adjournment**

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

# Team P.E.R.C.H Meeting

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## *Meeting Minutes*

April 29, 2014

### **I. Call to Order**

Sydney called to order the regular meeting of Team P.E.R.C.H at 1:20 P.M. on April 29, 2014 at JML 83.

### **II. Roll Call**

Cole conducted a roll call. The following persons were present: Cole, 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
  - Cole – Bin pick up is welded. Worked on Solidworks fan and final design. Scissor lift is attached to frame
  - Sydney – Shared rough draft of expo poster. Worked on technical presentation
  - Jordan – Helped make the expo poster. Worked on technical presentation

### **V. New Business**

- a) Assign Action Items
  - Cole –
  - Spencer –
  - Sydney – Finish expo presentation
  - Jordan – Print expo poster at campus copy center (30x40) laminate and mount

### **VI. Adjournment**

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