

# ***ME 424 Robotic Workcell Project***

## ***Team Meeting Agenda***

June 16, 2016

12:30pm

GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins

### I. Old Business

#### a. Review of Assigned Tasks

- i. Come up with at least two ideas for team names – all
- ii. Prepare questions for instructor meeting Monday – all

### II. New Business

- a. Getting to know each other
- b. General project discussion
- c. Preparation for instructor meeting on Monday

### III. New Assigned Tasks

- a. To be determined

### IV. Closing Remarks

# ***ME 424 Robotic Workcell Project***

## ***Instructor Meeting Agenda***

June 20, 2016

11:00am

TLC 247 (Classrom)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins, Mike Maughan

### I. Old Business

- a. Accomplishments from previous meeting
  - i. Team Name: “Do-All Robotics”
  - ii. List of Questions for our Client Meeting
  - iii. Division of Labor (Robotics / Workcell restructuring)

### II. New Business

- a. Prepare rough timeline
- b. Go over client questions
- c. Preparation for client meeting on Tuesday

### III. New Assigned Tasks

- a. To be determined

### IV. Closing Remarks

# ***ME 424 Do-All Robotics***

## ***Client Meeting Agenda***

June 21, 2016

11:00am

GJ 108 (Design Suite)

Type of Meeting: Client Meeting

Meeting Invitees: Steve Beyerlein, Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins

### I. Old Business

- i. Team Name: “Do-All Robotics”
- ii. Introductions “Getting to know each other”

### II. New Business

- a. Questions for client
- b. Prepare list of deliverables
- c. Create rough timeline for project milestones
- d. Client communication protocol

### III. New Assigned Tasks

- a. To be determined

### IV. Closing Remarks

# ***ME 424 Do-All Robotics***

## ***Team Meeting Agenda***

June 23, 2016

12:30pm

GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins

### I. Old Business

#### a. Review of Assigned Tasks

- i. Research on programming robots – Ryan & Jacob
- ii. Research on new work cell design – Adam & Bridger

### II. New Business

#### a. Future team building activity

#### b. General project discussion

#### c. Go over schedule and budget

- i. What purchases are we planning on?

#### d. Preparation for Monday

##### i. Problem Statement

##### ii. Target specs

##### iii. Relevant system diagrams

### III. New Assigned Tasks

#### a. See work breakdown structure

### IV. Closing Remarks

***Do-All Robotics***  
***Instructor Meeting Agenda***

June 27, 2016

11:00am

GJ 108 & via Phone Call or Skype

Type of Meeting: Instructor Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Mike Maughan

I. Old Business

- a. Accomplishments from previous week
  - i. Making the robot move/basic programming
  - ii. New work-cell design
  - iii. Previous teams' documentation

II. New Business

- a. Problem Statement Development
- b. Project Deliverables
- c. Bridger's Absence
- d. Legality of including DENSO documentation in deliverables
- e. Required Purchases

III. New Assigned Tasks

- a. To be determined

IV. Closing Remarks

# ***ME 424 Do-All Robotics***

## ***Team Meeting Agenda***

June 30, 2016

12:30pm

GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil

### I. Old Business

- a. Review of Assigned Tasks
  - i. Create CAD of new workcell design - Adam
  - ii. Generate outline for instruction manual – Ryan
  - iii. Research previous programs/work on WinCAPS - Jacob

### II. New Business

- a. Meeting with Dave/getting turned with Dr. B
- b. Are we on schedule?
- c. Metrics for design details
- d. Prep for due dates next Thursday
- e. Boeing Trip

### III. New Assigned Tasks

- a. See work breakdown structure

### IV. Closing Remarks

***Do-All Robotics***  
***Instructor Meeting Agenda***

July 5, 2016  
11:00am  
GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins, Mike Maughan

I. Old Business

- a. Getting Bridger up to speed
- b. Accomplishments from previous week
  - i. Work-cell design & pedestal design
  - ii. Outline for instruction manual
  - iii. Work on robotic programming, specifically WinCAPS
- c. Problem Statement

II. New Business

- a. Preparation for due date on Thursday
  - i. Wiki Page
  - ii. Portfolio
  - iii. Logbook
- b. Schedule for 2<sup>nd</sup> half of class

III. New Assigned Tasks

- a. To be determined

IV. Closing Remarks

# **ME 424 Do-All Robotics**

## **Team Meeting Agenda**

July 7, 2016  
12:30pm  
GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins

### I. Old Business

- a. Review of Assigned Tasks
  - i. Work-cell design (especially pedestals) - Adam
  - ii. First & Second Section of Manual – Ryan
  - iii. BOM and price quote for second arm - Jacob

### II. New Business

- a. SEL tour in Lewiston tomorrow
  - i. Meet in Steam Plant parking lot at 7:30am tomorrow
  - ii. Business causal – nice shirt, pants, close toed shoes
- b. Finish all things due today at COB
  - i. Wiki page
  - ii. Portfolio
  - iii. Logbooks w/review form

### III. New Assigned Tasks

- a. See work breakdown structure

### IV. Closing Remarks

# ***Do-All Robotics***

## ***Instructor Meeting Agenda***

July 11, 2016

11:00am

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins, Mike Maughan

### I. Old Business

- a. Previous week's work/accomplishments
- b. Accomplishments from previous week
  - i. Work on instruction manual
  - ii. Required hardware for second arm
  - iii. Pedestal design price quotes
- c. Problem Statement

### II. New Business

- a. Advice for client meeting tomorrow with Dr. B
- b. Boeing trip this weekend
- c. Comments on everything we turned in Friday

### III. New Assigned Tasks

- a. To be determined

### IV. Closing Remarks

***Do-All Robotics***  
***Instructor Meeting Agenda***

July 18, 2016  
11:00am  
GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins, Mike Maughan

I. Old Business

- a. Debrief on Boeing trip
- b. Accomplishments from previous weeks
  - i. Pedestal fabrication
  - ii. Instruction manual progress
  - iii. Requirements for second arm
  - iv. Wiki page and portfolio work

II. New Business

- a. Preparation for client meeting (due 07/29)
- b. Schedule for Fall semester

III. New Assigned Tasks

- a. To be determined

IV. Closing Remarks

# ***ME 424 Do-All Robotics***

## ***Team Meeting Agenda***

July 21, 2016  
12:30pm  
GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins, Alex Olson

### I. Old Business

- a. Review of Assigned Tasks
  - i. Pedestal Design – Adam
  - ii. Instruction Manual – Ryan
  - iii. Hardware for second arm – Jacob
  - iv. PDR documents – Bridger

### II. New Business

- a. Scheduling
  - i. Are we on track?
  - ii. Detailed schedule for final two weeks
- b. Project Deliverables
  - i. Wiki Page
  - ii. Portfolio
  - iii. Detailed Design Review (Tuesday or Wednesday)

### III. New Assigned Tasks

- a. To be determined

### IV. Closing Remarks

# ***Do-All Robotics***

## ***Instructor Meeting Agenda***

July 25, 2016  
11:00am  
GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins,  
Mike Maughan, Alex Olson

### I. Old Business

- a. Accomplishments from previous week
  - i. Pedestal fabrication
  - ii. Instruction manual progress
  - iii. Requirements for second arm

### II. New Business

- a. Preparation for client meeting (due 07/29)
  - i. Presentation materials
- b. Schedule for next two weeks
  - i. Monday – Pedestal welded, slides created for PDR, wiki page updates
  - ii. Wednesday – enclosure designs completed and reviewed
  - iii. Thursday – Robot on pedestal w/ tables, drawing package for workcell, WINCAPS section of manual complete, know exactly how arms interface
  - iv. Week after – Prepare for snapshot

### III. New Assigned Tasks

- a. To be determined

### IV. Closing Remarks

# **ME 424 Do-All Robotics**

## **Team Meeting Agenda**

July 28, 2016  
12:30pm  
GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins

### I. Old Business

- i. Debriefing on Detailed Design Review

### II. New Business

#### a. To-do list before Snapshot Day (08/05)

- i. Wiki page
  1. Do your damn bios
  2. Appendix with important documents
  3. Content for design **process** of workcell and enclosure
- ii. Portfolio – review midterm grade sheet
  1. Detailed timeline (flowchart)
  2. Future timeline – ideas we have brainstormed
  3. Distinct measure of how two bots work together
  4. Renders & drawing packages

### III. New Assigned Tasks

- a. To be determined

### IV. Closing Remarks

**ME 424 Do-All Robotics**  
**Instructor Meeting Agenda**

August 1, 2016  
12:30pm  
GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Adam Grebil, Bridger Hopkins, Mike Maughan

I. Old Business

- a. Debriefing on Detailed Design Review
- b. Progress on action items
- c. Completion dates for workcell construction

II. New Business

- a. Test Drawing metric for stability
- b. Purchasing items before end of summer
- c. Advice for Snapshot Day

III. New Assigned Tasks

- a. To be determined

IV. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

August 25, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Bridger Hopkins, Mike Maughan

- I. Old Business
  - a. Review of workcell enclosure design
  - b. Tentative schedule for Fall semester
- II. New Business
  - a. Scope of Fall project
    - i. Finishing workcell and documentation
    - ii. Possible processes to implement in workcell
- III. New Assigned Tasks
  - a. To be determined
- IV. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

September 1, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Bridger Hopkins, Mike Maughan, Alex Olson

- V. Old Business
  - a. Workcell construction
    - i. Enclosure
    - ii. Pedestal
  - b. Manual/Documentation
- VI. New Business
  - a. Process ideas to present to client
- VII. New Assigned Tasks
  - a. Workcell completion by 09/09/2016
  - b. Manual completion by 09/02/2016
  - c. Need to present Fall ideas to client ASAP
- VIII. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

September 15, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Bridger Hopkins, Mike Maughan, Alex Olson

- IX. Old Business
  - a. Workcell construction
    - i. Behind schedule due to weekend
    - ii. Final details of construction
      - 1. Locking mechanisms
      - 2. Mounting to floor
      - 3. Shelf for brains
    - iii. Pedestal quote from Facilities - \$357.84
- X. New Business
  - a. Proceeding into Fall
    - i. WBS of project
    - ii. Deliverables
- XI. New Assigned Tasks
  - a. To be determined
- XII. Closing Remarks

# *ME 424 Do-All Robotics*

## *Team Meeting Agenda*

September 20, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Bridger Hopkins

### XIII. Old Business

#### a. Progress on enclosure

- i. Floor mounting
- ii. Lockouts
- iii. Pedestal – fabricated and painted on October 7<sup>th</sup>

### XIV. New Business

#### a. Scheduling for 2<sup>nd</sup> half of project

- i. One process done by Envision ID
- ii. Documentation – need to update wiki and binder
- iii. Running schedule (Gantt Chart)

### XV. New Assigned Tasks

#### a. To be determined

### XVI. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

September 22, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Mike Maughan, Alex Olson, Ryan Chapman, Jacob Dostie, Bridger Hopkins

XVII. Old Business

- a. Workcell construction
  - i. Pedestal Complete on October 7<sup>th</sup>
  - ii. Lockouts
  - iii. Anchoring to floor

XVIII. New Business

- a. Schedule for Fall Semester
  - i. WBS completed
  - ii. MS Project (Gantt Chart) in progress
- b. Deliverables for September 30<sup>th</sup>
  - i. Updated Documentation
  - ii. Completed drawing program
  - iii. Shelving for controllers and laptop

XIX. New Assigned Tasks

- a. To be determined

XX. Closing Remarks

# *ME 424 Do-All Robotics*

## *Team Meeting Agenda*

September 27, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Bridger Hopkins

### XXI. Old Business

#### a. Progress on tasks to be done by September 30<sup>th</sup>

- i. Programming work
- ii. Shelving
- iii. Documentation
- iv. Other enclosure tasks

### XXII. New Business

#### a. Check scheduling for next project milestones

### XXIII. New Assigned Tasks

#### a. To be determined

### XXIV. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

September 29, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Mike Maughan, Alex Olson, Ryan Chapman, Jacob Dostie, Bridger Hopkins

XXV. Old Business

- a. Workcell construction
- b. Progress on drawing program
  - i. End effector
  - ii. Programming
- c. Progress on other deliverables
  - i. Updated documentation
  - ii. Shelving for controllers

XXVI. New Business

- a. None at this time

XXVII. New Assigned Tasks

- a. To be determined

XXVIII. Closing Remarks

# *ME 424 Do-All Robotics*

## *Team Meeting Agenda*

October 4, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Bridger Hopkins

### XXIX. Old Business

- a. Are we staying on schedule?
- b. Workcell
  - i. Lockouts
  - ii. Anchoring

### XXX. New Business

- a. Progress toward Envision Idaho
- b. Looking forward to the end of the semester

### XXXI. New Assigned Tasks

- a. To be determined

### XXXII. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

October 20, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Mike Maughan, Alex Olson, Ryan Chapman, Jacob Dostie, Bridger Hopkins

XXXIII. Old Business

- a. Workcell construction
  - i. Cell Anchored
  - ii. Lockouts
  - iii. Second Pedestal
- b. Progress on other deliverables
  - i. 2 Robot drawing program
  - ii. Cup stacking program

XXXIV. New Business

- a. Purchases made

XXXV. New Assigned Tasks

- a. To be determined

XXXVI. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

October 27, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Mike Maughan, Alex Olson, Ryan Chapman, Jacob Dostie, Bridger Hopkins

XXXVII. Old Business

- a. Pedestal issue with Facilities
- b. Progress on lockouts

XXXVIII. New Business

- a. Cup Stacking
  - i. End effector
  - ii. Programming
- b. 2 Robot Drawing
  - i. Robot communication
  - ii. End effectors

XXXIX. New Assigned Tasks

- a. To be determined

XL. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

November 3, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Mike Maughan, Alex Olson, Ryan Chapman, Jacob Dostie, Bridger Hopkins

XLI. Old Business

- a. Lockout completed by end of week (may be Sunday)

XLII. New Business

- a. Revised schedule for weeks leading to TG Break
- b. Done this week
  - i. Lockouts
  - ii. End effector proto for 2 arm drawing
  - iii. 2<sup>nd</sup> pedestal sent to be painted
  - iv. Rough program for cup stacking
- c. Any remaining purchases

XLIII. New Assigned Tasks

- a. Work on what you've been assigned this week

XLIV. Closing Remarks

# *ME 424 Do-All Robotics*

## *Team Meeting Agenda*

November 8, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Bridger Hopkins

XLV. Old Business

a. Are we staying on schedule?

XLVI. New Business

a. Are we on track to finish our milestones before Thanksgiving Break

XLVII. New Assigned Tasks

a. To be determined

XLVIII. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

November 10, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Mike Maughan, Alex Olson, Ryan Chapman, Jacob Dostie, Bridger Hopkins

XLIX. Old Business

- a. Look back on weekly schedule

L. New Business

- a. Purchases Bridger has made/will make
- b. Deliverables for Snapshot & End-of-Course

LI. New Assigned Tasks

- a. Work on what you've been assigned this week

LII. Closing Remarks

*ME 426 Do-All Robotics*  
*Instructor/Client Meeting Agenda*

November 17, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor & Client Meeting

Meeting Invitees: Dr. Steve Beyerlein, Dr. Mike Maughan, Alex Olson,  
Ryan Chapman, Jacob Dostie, Bridger  
Hopkins

LIII. Old Business

- a. Final walkthrough of workcell
- b. Progress on demo processes
  - i. Cup Stacking
  - ii. 2 Arm Drawing

LIV. New Business

- a. Questions and comments from Dr. Beyerlein
- b. Milestones to end of semester

LV. New Assigned Tasks

- a. Bridger – finish up any loose ends with Workcell wiring
- b. Jacob – Make sure any kinks are worked out of drawing program
- c. Ryan – Test end effector repeatability and make adjustments as needed

LVI. Closing Remarks

# *ME 424 Do-All Robotics*

## *Team Meeting Agenda*

November 29, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Team Meeting

Meeting Invitees: Ryan Chapman, Jacob Dostie, Bridger Hopkins

### LVII. Old Business

- a. Did we finish everything we needed to before Thanksgiving Break?
- b. Would Mike be proud of us?

### LVIII. New Business

- a. Finish for Snapshot Day
  - i. Nice looking poster
  - ii. Completed wiki page
  - iii. Updated portfolio
  - iv. Changes to instruction manual if needed
- b. Anything we might need to finish next week (12/05 – 12/09)

### LIX. New Assigned Tasks

- a. Divide and conquer our action items from the meeting

### LX. Closing Remarks

*ME 424 Do-All Robotics*  
*Instructor Meeting Agenda*

December 1, 2016

2:00pm

GJ 108 (Design Suite)

Type of Meeting: Instructor Meeting

Meeting Invitees: Mike Maughan, Alex Olson, Ryan Chapman, Jacob Dostie, Bridger Hopkins

LXI. Old Business

a. Progress on deliverables for semester

i. Enclosure

ii. Programming

LXII. New Business

a. Snapshot preparation

i. Poster

ii. Workspace ready

b. Ryan gone Thursday (today) afternoon – Friday afternoon

c. Bridger gone sometime next week

LXIII. New Assigned Tasks

a. Wrap everything up so we can get it turned in

LXIV. Closing Remarks