C:\Users\mloughry\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\OG0115WC\CATME logo - Meeting Support - Web.tif **Team Minutes for Team 17**

***Delete the instructions in black italics and replace them with your team’s information. Add new information after each meeting and save the document with the current date after the document name. This will create one long document that includes the minutes of all team meetings. You will have the old versions saved under document names with the previous dates in case they are needed.***

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| **Team Members’ Names** |
| *Polina Rygina* |
| *Silje Ostrem* |
| *Blake Billharz* |
| *Ben Sprik* |
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**Meeting Agenda Template**

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| **Meeting Date:**  ***Put date here*** | **Start Time: *Record time meeting started* End Time: *Record time meeting ended***  **Summary of Meeting** |
| 1. Attendance | *Record members present (if absent, include reasons and* *whether teammates were notified in advance).* |
| 2. Purpose of Meeting |  |
| 3. Discuss work completed since last meeting. | *Team members report on what has been accomplished.* *Record notes of those reports here.* |
| 4. Summarize work completed during meeting | *Summarize discussion and work accomplished.* |
| 5. Review action items to be completed after meeting | *Who will do what by when?* |
| 6. Schedule next meeting | *Note time, place, and purpose.* |
| 7. Recording secretary | *Note who took the meeting minutes and the date that meeting* *minutes were circulated by e-mail.* |

**Meeting 1**

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| **Meeting Date:**  ***2/12/2024*** | **Start Time: 2:00pm End Time: 3:00**  **Summary of Meeting** |
| 1. Attendance | Polina Rygina, Blake Billharz, Ben Sprik, Silje Ostrem |
| 2. Purpose of Meeting | Started mini project, discuss division of tasks |
| 3. Discuss work completed since last meeting. | Polina Rygina: N/A, started project |
| Blake Billharz: N/A, started project |
| Silje Ostrem: N/A, started project |
| Ben Sprik: N/A, started project |
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| 4. Summarize work completed during meeting | Partitioned tasks among members, initialized the repository on all member’s computers. Discussed how Pi will send data to the arduino for control. |
| 5. Review action items to be completed after meeting | Polina: Work on LCD threading and improving camera Aruco detection |
| Silje: Work on Quadrant detection with Aruco |
| Blake: Review simulink models |
| Ben: Review simulink models |
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| 6. Schedule next meeting | 2/21/24 in BB305 at 2:00pm |
| 7. Recording secretary | Polina Rygina |

**Meeting 2**

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| **Meeting Date:**  ***2/21/24*** | **Start Time: 1:30 End Time: 3:00**  **Summary of Meeting: Implementation** |
| 1. Attendance | *Ben Sprik, Silje Ostrem, Polina Rygina, Blake Billharz* |
| 2. Purpose of Meeting | *Implementation strategies, system integration discussion & Techniques, and discussion of next steps* |
| 3. Discuss work completed since last meeting. | *Silje Ostrem: Finished the aruco detection module & live video display* |
| *Polina Rygina: finished LCD threading, began to combine python code* |
| *Ben Sprik: added integral wind-up code, wrote i2c interrupt, modified matlab controller* |
| *Blake Billharz: Completed Simulink model. Wrote i2c interrupt. Debugged and refactored most of the code base.* |
| 4. Summarize work completed during meeting | *Finished implementation of each component. Successfully integrated all parts of the project, and successfully demoed* |
| 5. Review action items to be completed after meeting | *Silje Ostrem: Documentation + CATME + review DEMO 1* |
| *Polina Rygina: Documentation + CATME + review DEMO 1* |
| *Ben Sprik: Documentation + CATME + review DEMO 1* |
| *Blake Billharz: Documentation + CATME + review DEMO 1* |
| 6. Schedule next meeting | *Next meeting is next Monday, Feb 28th* |
| 7. Recording secretary | *Silje Ostrem* |

**Meeting 3**

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| **Meeting Date:**  ***02/26/24*** | **Start Time: 2:00pm End Time: 3:00pm**  **Summary of Meeting: Setting team responsibilities** |
| 1. Attendance | Polina Rygina, Blake Billharz, Ben Sprik, Silje Ostrem |
| 2. Purpose of Meeting | Started demo 1, discuss division of tasks, start finalizing hardware design. |
| 3. Discuss work completed since last meeting. | Polina Rygina: N/A, finished mini project |
| Blake Billharz: N/A, finished mini project |
| Silje Ostrem: N/A, finished mini project |
| Ben Sprik: N/A, finished mini project |
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| 4. Summarize work completed during meeting | Begin partner programming for computer vision, finalize hardware design. |
| 5. Review action items to be completed after meeting | Polina Rygina: Prototype angle detection methods(matrix transformation), develop prototype angle detection functions |
| Blake Billharz: Read through and understand control documents, characterize transfer function |
| Silje Ostrem: Prototype angle detection methods(geometry), develop prototype angle detection functions |
| Ben Sprik: Come up with a test script to determine transfer functions, characterize transfer function |
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| 6. Schedule next meeting | 03/04/24 |
| 7. Recording secretary | Polina Rygina |

**Meeting 4**

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| **Meeting Date:**  **3/4/24** | **Start Time: *2:00***  **Summary of Meeting: Discuss project and next steps** |
| 1. Attendance | Blake Billharz, Silje Ostrem, Polina Rygina, Ben Sprik |
| 2. Purpose of Meeting | Check in on demo 1 and see what needs to be done |
| 3. Discuss work completed since last meeting. | Polina Rygina: Completed Camera Calibration and pose estimation |
| Silje Ostrem: Completed first round of angle detection function |
| Ben Sprik: Built Robot, transfer function exercise |
| Blake Billharz: Wrote libraries, transfer function exercise |
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| 4. Summarize work completed during meeting | Troubleshoot angle detection function, and design position control function |
| 5. Review action items to be completed after meeting | Silje Ostrem: Finish Angle detection |
| Polina Rygina:Finish angle detection |
| Ben Sprik:Finish position control function & troubleshoot |
| Blake Billharz: Finish position control function & troubleshoot |
| 6. Schedule next meeting | 3/11/24 |
| 7. Recording secretary | Silje Ostrem |

**Meeting 5**

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| **Meeting Date:**  **3/11/24** | **Start Time: *2:00***  **Summary of Meeting: Discuss Demo2** |
| 1. Attendance | Blake Billharz, Silje Ostrem, Polina Rygina, Ben Sprik |
| 2. Purpose of Meeting | Breakdown Demo 2 objectives and division of tasks. |
| 3. Discuss work completed since last meeting. | Polina Rygina: N/A, completed Demo1 |
| Silje Ostrem: N/A, completed Demo1 |
| Ben Sprik: N/A, completed Demo1 |
| Blake Billharz: N/A, completed Demo1 |
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| 4. Summarize work completed during meeting | Assigned tasks, began work on implementing features required for Demo2 |
| 5. Review action items to be completed after meeting | Silje Ostrem: Develop I2C protocol |
| Polina Rygina: Refine pose estimation for distance detection |
| Ben Sprik: Begin implementation of controllers/arduino code |
| Blake Billharz: Begin implementation of controllers/ arduino code |
| 6. Schedule next meeting | 3/25/24 |
| 7. Recording secretary | Polina Rygina |

**Meeting 6**

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| **Meeting Date:**  **3/25/24** | **Start Time: *2:00***  **Summary of Meeting: Discuss Demo2 Progress** |
| 1. Attendance | Blake Billharz, Silje Ostrem, Polina Rygina, Ben Sprik |
| 2. Purpose of Meeting | Combine existing code together to build the main files for the demo |
| 3. Discuss work completed since last meeting. | Polina Rygina: Refined pose estimation to run more quickly. |
| Silje Ostrem: Developed the i2c communication code between Pi and Arduino |
| Ben Sprik: Refined position/velocity controllers |
| Blake Billharz: Expand functionality of control libraries |
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| 4. Summarize work completed during meeting | Began integrating code for both systems separately and preliminary testing of code. |
| 5. Review action items to be completed after meeting | Silje Ostrem: Begin testing of computer vision code |
| Polina Rygina: Begin testing of computer vision code |
| Ben Sprik: Refine PID control and data receiving. |
| Blake Billharz: Refine PID control and data receiving. |
| 6. Schedule next meeting | 4/1/24 |
| 7. Recording secretary | Silje Ostrem |

**Meeting 7**

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| **Meeting Date:**  **4/1/24** | **Start Time: *2:00***  **Summary of Meeting: Integrate Computer Vision and Control** |
| 1. Attendance | Blake Billharz, Silje Ostrem, Polina Rygina, Ben Sprik |
| 2. Purpose of Meeting | Integrate both systems and perform debugging as needed. Mount Pi and camera to robot. |
| 3. Discuss work completed since last meeting. | Polina Rygina: Verified functionality of computer vision code |
| Silje Ostrem: Verified functionality of computer vision code |
| Ben Sprik: Fixed PID control and arduino logic issues |
| Blake Billharz: Fixed PID control and arduino logic issues |
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| 4. Summarize work completed during meeting | Verified functionality of computer vision system and refined control system |
| 5. Review action items to be completed after meeting | Silje Ostrem: Debug system upon integration, verify functionality |
| Polina Rygina: Debug system upon integration, verify functionality |
| Ben Sprik: Debug system upon integration, verify functionality |
| Blake Billharz: Debug system upon integration, verify functionality |
| 6. Schedule next meeting | 4/8/24 |
| 7. Recording secretary | Polina Rygina |