Sprint 7 Retrospective Document

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Project acronym: ROBOCON-RT

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# Sprint 7 summary

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| --- | --- | --- | --- |
| Item ID (from the previous retrospective doc) | Workpackage ID (from the Kick-off doc) | Status | Group’s comments |
| 11 | 4 | In progress | We established connections with the motor drive, and we are still working on consistency. |
| 12 | 6 | Completed | We are able to communicate with the motor drives using the etherCAT kernel modules installed on the ConnectCore 6. |
| 13 | 6 | In progress | We are experimenting with various embedded simulation libraries. |
| 14 | 4 | In progress | The abstract interface has been completed, the specific implementation is in progress. |
| 8 | 6 | Dropped | We decided that our solution using etherCAT and simulation hardware is portable enough. |
| 16 | 4 | In progress | We integrated ROS and Gazebo environment. There are attempts for basic simulations. Communication will be established later. |
| 4 | 4 | In progress | We wrote the C code and now we are working on resolving the communication inconsistencies. |

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# Sprint 8 plan

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| --- | --- | --- | --- |
| Item ID | Workpackage ID (from the Kick-off doc) | Description | Status |
| 11 | 4 | Establishing the consistent communication with the new motor that we will replace with the older one | Leftover from Sprint 7 |
| 17 | 6 | Create a simulation similar with our real robot scenario | New |
| 13 | 6 | Simulation: Control the simulation robot components with a C code | Leftover from Sprint 7 |
| 14 | 4 | Motor Control: Implement the EtherCAT motor drive control interface | Leftover from Sprint 7 |
| 18 |  | Testing EtherCAT C code on ConnectCore 6 | New |
| 16 | 4 | Design the network interface between the RHexLib and Gazebo | Leftover from Sprint 7 |
| 4 | 4 | EtherCAT Master library: Write C code to directly control brushed motors | Leftover from Sprint 7 |

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# Overall progress

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Sprint 1 | Sprint 2 | Sprint 3 | Sprint 4 | Sprint 5 | Sprint6 | Sprint7 |
| MF1 | 0% | 5% | 15% | 25% | 25% | 45% | 50% |
| MF2 | 0% | 60% | 90% | 92% | 92% | 93% | 94% |
| MF3 | 66.67% | 73% | 84% | 100% | 100% | 100% | 105% |
| MF4 | 0% | 10% | 10% | 10% | 10% | 30% | 30% |
| MF5 | 16.6% | 45% | 76% | 80% | 82% | 82% | 82% |
| MF6 | 0% | 10% | 10% | 10% | 10% | 45% | 75% |
| MF7 | 0% | 0% | 0% | 0% | 0% | 30% | 30% |
| MF8 | 0% | 0% | 0% | 0% | 0% | 0% | 40% |
| MF9 | 13% | 14% | 15% | 20% | 25% | 25% | 25% |
| MF10 | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| MF11 | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| MF12 | 37% | 40% | 40% | 40% | 40% | 40% | 40% |