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Sprint Goal

Our goal for Sprint 7 will work on PLC, integrate the paintball marker, and finalize safety features.

Product Backlog

| Backlog Item | Estimate (hours) |
|----------------------------------|------------------|
| PLC | 12 |
| Integrating the Paintball marker | 15 |
| Safety Features | 5 |

Sprint Backlog for PLC

| Backlog Item | Estimate (hours) |
|---|------------------|
| Device Configuration of the GPIO | 4 |
| Communicating GXWorks3 and RT Toolbox3 | 1 |
| Testing various outputs, including the FX5-8EYR/ES 8 output relay | 4 |
| Identifying and reading part manuals | 3 |

Sprint Backlog for Paintball Marker

| Backlog Item | Estimate (hours) |
|--|------------------|
| Mount the paintball marker on to the robot arm | 2 |
| Wire the electric/solenoid valve to the PLC | 1 |
| Buy Safety gear | 1 |
| 3D print mounting bracket for paintball marker | 3 |

Sprint Backlog for Safety

| Backlog Item | Estimate (hours) |
|---|------------------|
| Light tower | 6 |
| Standard wiring – OSHA and NFPA Standards | 1 |
| Canvas/ Board for painting | 1 |
| Revise safety documentation | 2 |

Sprint Risks

Risk 1: Time constraint

Not receiving the parts within the time constraint.

Risk 2: Schedule conflicts

• Mitigated by proper communication between team members, allocating enough time for project requirements.

Risk 3: Buildup of unknown errors, new errors arising, etc.

Mitigated by reading documentation and reaching out to professor and TA.

