## Project Goals

* Create a walking quadruped
* Autnomous guidance
  + Automated pathfinding, SLAM, Object Recognition, GPS
* Platform for a robotic arm, other accessories
* Cybergear motor testing

## Timeline

| **Date** | **Status** |
| --- | --- |
| 10/1 (General Meeting) | Leg CAD complete  Start printing leg parts  Start chassis CAD |
| 10/4 | Leg testing  Start printing additional legs |
| 10/8 (General Meeting) | Chassis/Integration CAD complete  Start printing chassis parts  Order camera module for CV |
| 10/11 | Robot assembly & wiring complete |
| 10/15 (General Meeting) | Robot Walks  V2 Design discussion  Start CAD on V2 |
| 10/18 | Implement IK  Experimenting with CV (Jetson nano) |
| Week of 10/22 | V2 CAD Complete  Start printing components |
| Week of 10/29 | Assemble V2  Improve walking code  Start implementing basic CV |
| Week of 10/29 | CV (continued)  Project scope discussion  V3 Design discussion  Start V3 CAD |
| Week of 11/5 | V3 CAD Complete  Start production of V3 parts |
| Week of 11/12 | V3 Assembly |
| … | … |

## References:

* MIT Mini cheetah: <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8793865&tag=1>, <https://dspace.mit.edu/handle/1721.1/118671>
* MIT Cheetah 3: <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8593885>
* Xiaomi Cyberdog: <https://www.mi.com/cyberdog2>
* Unitree Go2: <https://www.unitree.com/go2/>
* Aaed Musa TOPS: <https://hackaday.io/project/192122-tops>
* James Bruton openDog V3: <https://github.com/XRobots/openDogV3>
* NOMAD Quadruped: <https://hackaday.io/project/177744-nomad-quadrupedal-robot>
* Mjbots Quad: <https://hackaday.io/project/167845-mjbots-quad>
* BATACHI quadruped: <https://github.com/nicohmje/BATACHI/tree/main>
* Barkour (Google DeepMind): <https://github.com/google-deepmind/barkour_robot>