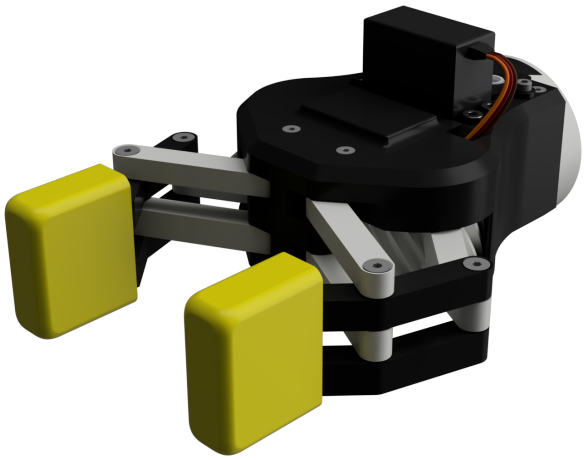
Robotic Gripper v1.0

1 Overview

- 3D printed
- Easy to make, easy to repair
- Cheap
- Integrated electronics
- Powerful grip
- ROS compatible



2 Description

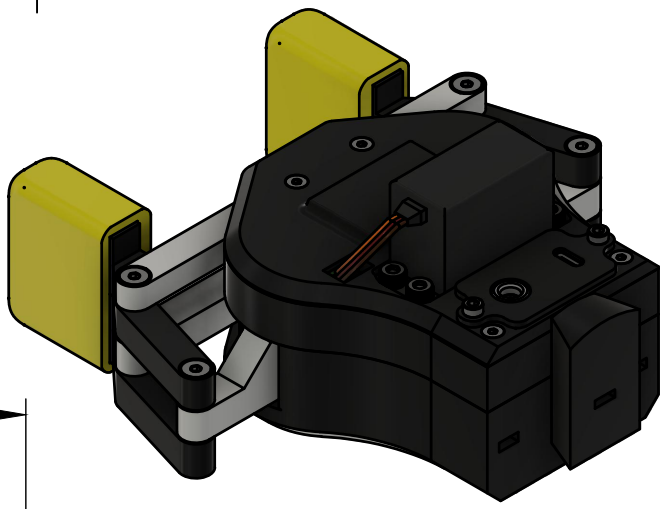
- The gripper is mostly 3D printed, all parts were designed for FDM printers.
- Cheap - <100$ (excluding 3d printed parts), the most expensive parts are servomechanism and microcontroller.
- Powerful grip - 2:1 gear ratio
- Plug'n play - after assembling the project all you need to do is connect a USB-C cable and power cord to DC socket.
- Easy communication - you can simply send the servo position using a USB-C cable and provided code example
- ROS compatible - use rosserial to communicate with the gripper(check code examples)

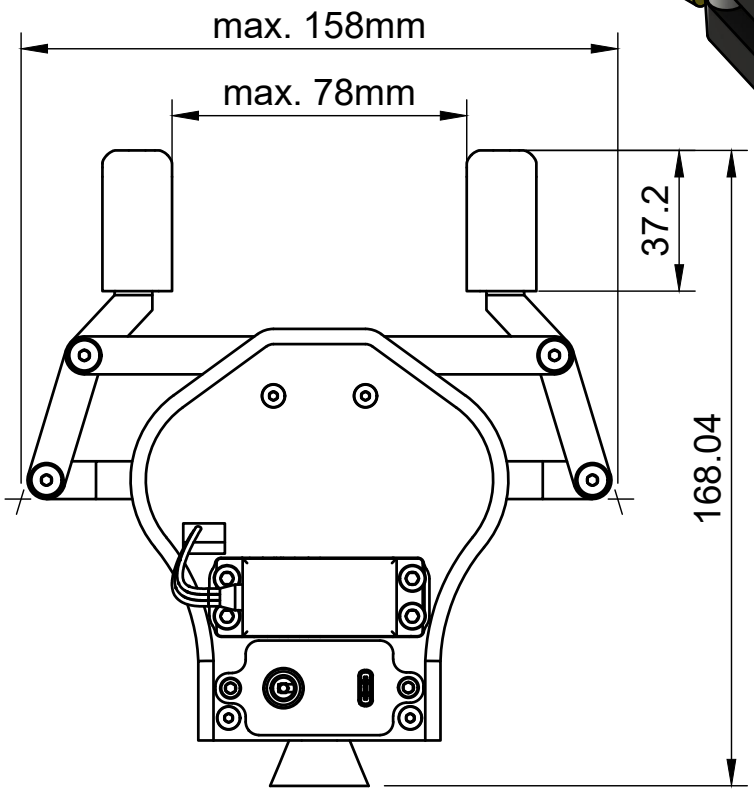
3 Technical specification

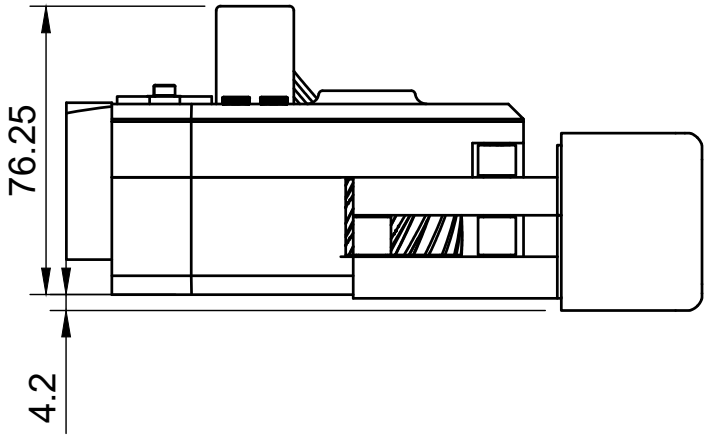
	Unit	Value
Power voltage	V	12*
Maximum current(for 12V)	A	X
Maximum gripping force	N	65**
Maximum opening(with TPU socks)	mm	78
Weight	g	X

*12V is recommended, however voltage regulator module used in this project has an input voltage from 6.3 to 50 V. Remember to check maximum voltage of the C6 capacitor at the PCB(LINK).
**Depends on the used servomechanism(value for LF20MG Servo).

4 Measures







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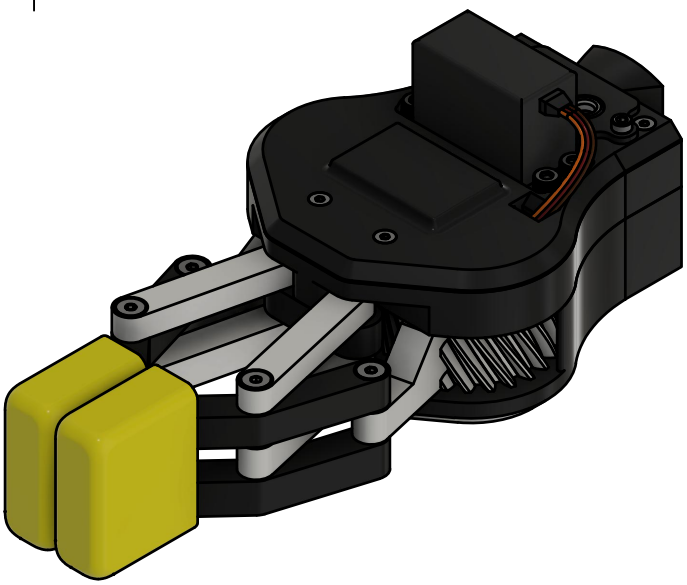

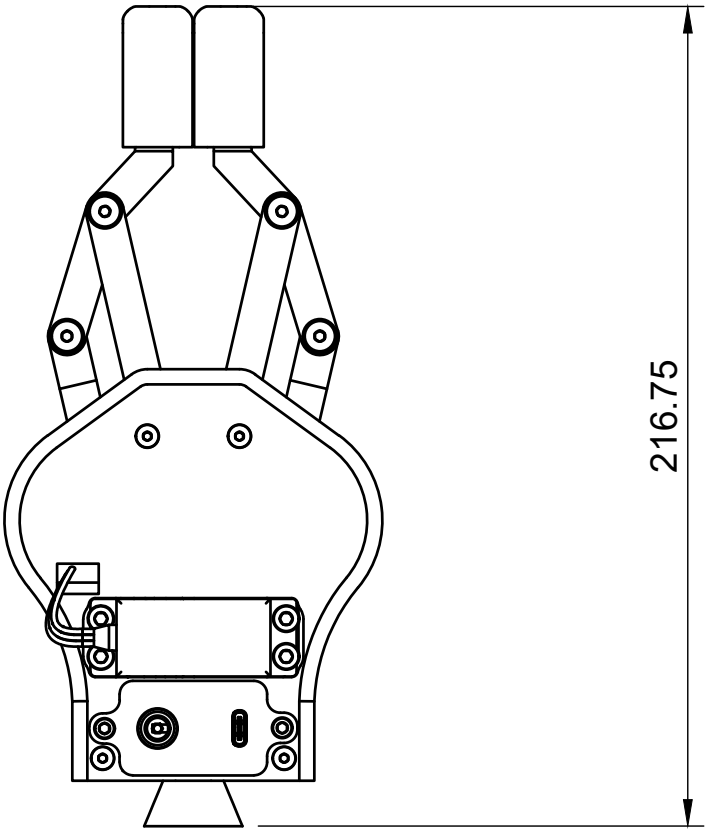

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