## Part 2: Determine Component Performance Envelope

Motor: [BLY172D-24V-4000](https://www.anaheimautomation.com/products/brushless/brushless-motor-item.php?sID=143&pt=i&tID=96&cID=22)

Amplifier: [Odrive](https://odriverobotics.com/shop/odrive-v36)

Encoder: [AMT232B](https://www.mouser.com/ProductDetail/CUI-Devices/AMT102-V?qs=WyjlAZoYn533PQfgnorrMg%3D%3D)

Microcontroller: [Arduino Mega 2560](https://www.amazon.com/ARDUINO-MEGA-2560-REV3-A000067/dp/B0046AMGW0/ref=sr_1_3?keywords=arduino+mega&qid=1643401589&sr=8-3)

Electromagnet: [DC-Powered Electromagnet, 24V DC, 1.4W, 3/4" OD | McMaster-Carr](https://www.mcmaster.com/5698K211/)

[uxcell 24V DC 10N Electric Lifting Magnet Electromagnet](https://www.amazon.com/uxcell-Electric-Lifting-Electromagnet-Solenoid/dp/B01MUA1334/ref=asc_df_B01MUA1334/?tag=hyprod-20&linkCode=df0&hvadid=241981689490&hvpos=&hvnetw=g&hvrand=8919255786713347525&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9021564&hvtargid=pla-451990471840&psc=1) has less weight

Transmission component: Ender 3 Gantry

Timing Belt: Same

Pulley: Same, but we cannot take out the pulley from the motor

[Pulley](https://us.misumi-ec.com/vona2/detail/110302193470/?CategorySpec=00000045557%3a%3aa%0900000029797%3a%3aaf%0900000029798%3a%3amig00000001419868%0900000029802%3a%3amig00000001419588%0900000029803%3a%3aa) with 21 teeth

Power source: Same

Linear Slider: Bearings from Gantry

Platform: Plastic, acrylic 6mm

THINGS WE NEED TO ORDER:

* Motor
* Microcontroller
* Electromagnet
* Pulley

THINGS TO GET FROM BILL STRONG

* Encoder
* Ender 3 Gantry