

Awesome Lego parts that can help you win an FLL tournament

Over the years there have been thousand of parts made by LEGO. You can find them at BrickLink and many can give you a competitive advantage. Jonathan has compiled some of the more interesting parts. There are thousands more. Happy searching!

GO TO THESE SITES

<http://www.bricklink.com>

<https://www.brickowl.com>

<https://www.toypro.com>

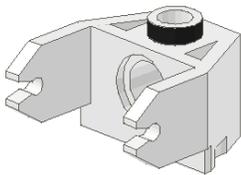
LEGO Magnets

Magnets have been included in specialty kits. They can be used for all kinds of attachments, releasable items, breakaway components, and more.

Broad Search for Magnets

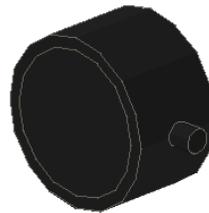
<http://www.bricklink.com/v2/search.page?q=magnets#T=A>

Magnet Holder



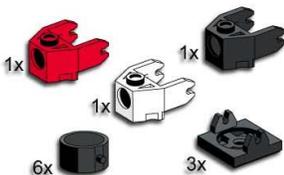
<http://www.bricklink.com/catalogItem.asp?P=2607>

Magnet Cylindrical



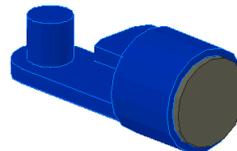
<http://www.bricklink.com/catalogItem.asp?P=73092>

Magnets and Magnet Holders



<http://www.bricklink.com/catalogItemPic.asp?S=5397-1>

Magnet Coupling, Train, for Train Base



<http://www.bricklink.com/catalogItem.asp?P=735>

Magnet Coupling, Train - Short for 722 locomotive power pickup brick



<http://www.bricklink.com/catalogItem.asp?P=x799>

Other Parts



Offset Crossover 8462

<http://www.bricklink.com/catalogItem.asp?P=32079pb01>

This could be used if you have to beams hit each other to make one to go over the other one.



Hard Plastic Spoked Giant Thin wheel

<http://www.bricklink.com/v2/catalog/catalogitem.page?P=59521#T=C>

So this part could be used for a nice wheel to get over things and up things.



Technic, Shock Absorber 9.5L, Spring (Soft)

<http://www.bricklink.com/catalogItem.asp?P=110a>

This could give your robot great suspension falling off things or could help making a spring powered mechanism.



Technic, Gearbox 3 x 4 x 1 2/3

<http://www.bricklink.com/catalogItem.asp?P=46217c01>

This could be used as a way to power two wheels with one motor so you can use the other ones for other things.



Technic, Disk 3 x 3

If your robot needs decorations these can make it look awesome!

<http://www.bricklink.com/catalogList.asp?catType=P&catID=638>



***Wheel 41 mm Snap Thin Tread, with Black Tire 41 mm Directional Tread**

<http://www.bricklink.com/catalogItem.asp?P=32247c01>

If you need a robot that drives straight and true these wheels can make it do that.

Broad Search for Tires

<http://www.bricklink.com/v2/search.page?q=tires#T=A>



***Technic Turntable Large Type 2, Complete Assembly with Black outside Gear Section**

<http://www.bricklink.com/catalogItem.asp?P=48452cx1>

This can be used as a steering mechanism or as a way to turn things around like an attachment.



Technic, Panel Plate 1 x 5 x 11

<http://www.bricklink.com/catalogItem.asp?P=64782>

These can be used as to push things and protect things



Air Blast Launcher Air Pump, Air Blast Launcher Base, Air Blast Launcher Injector, and Air Blast Receiver

<http://www.bricklink.com/catalogItem.asp?P=87943>

<http://www.bricklink.com/catalogItem.asp?P=87941>

<http://www.bricklink.com/catalogItem.asp?P=88496>

<http://www.bricklink.com/catalogItem.asp?P=87944>

if you need a something hit but you don't have time to go to it. Use an air powered car with these parts.



***Technic Competition Cannon, Round Bottom, Technic Competition Arrow, Liftarm Shaft with Hollow Lt Bluish Gray Rubber End**

<http://www.bricklink.com/catalogItem.asp?P=32074>,

<http://www.bricklink.com/catalogItem.asp?P=57028c02>

If you need something hit long range use a Lego® cannon to hit it.

Weight Bricks

If you need to counterweight your robot these will do the trick.



<http://www.bricklink.com/v2/catalog/catalogitem.page?P=73090b#T=C>

<http://www.bricklink.com/v2/catalog/catalogitem.page?P=73090a#T=C>

In Case You Have Nothing Else to Spend Your Money On

Search on Ebay for 'rare lego' then sort by price. There are number of items over a thousand dollars. Who knew?



Lego Large Store Display Figure Rare Xmas Gift Minifig

Item condition: **New**

Price: **US \$1,499.00** [Buy It Now](#)

or

Best Offer: [Make Offer](#)

[Add to Watch list](#)

Shipping: **FREE shipping** Other (see description)
| [See all details](#)
Estimated delivery time varies.

Returns: 7 day money back, buyer pays return shipping | [Read details](#)

eBay Buyer Protection
eBay will cover your purchase price plus original shipping.
[Learn more](#)

Additional Cool Parts Submitted by Steve T

<p>Technic, Axle Flexible 26L (Axle 2L and 5L Ends) with Dark Gray Cable http://www.bricklink.com/catalogItem.asp?P=x334c01</p>	
<p>Technic, Gear 24 Tooth Clutch http://www.bricklink.com/catalogItem.asp?P=60c01</p>	
<p>Technic, Pin Connector Perpendicular 2 x 2 Bent http://www.bricklink.com/catalogItem.asp?P=44809</p>	
<p>Technic, Pin with Friction Ridges Lengthwise WITHOUT Center Slots http://www.bricklink.com/catalogItem.asp?P=4459</p>	

The "Axle Flexible 26L" can be really handy if you need to change axis of rotation, especially at an angle other than 90 degrees. You just have to be careful you don't over-torque the axle, because the "axle" is actually just a coated spring and can be "unsprung" (i.e. permanently damaged) if too much torque is applied.

The "Gear 24 Tooth Clutch" is excellent if you want the robot to return to a previous "starting position" for an attachment. You can tell the motor to run full power and keep it running well beyond the time required to get the attachment to the predetermined location. The clutch in the gear will allow the axle inside to keep spinning even after the attachment has "bottomed" or "topped" out. This way the robot can easily "reset" its attachment to the starting position or easily switch back and forth between two extreme positions. (NOTE: The clutch gear is also helpful to use in concert with the flexible axle to make sure you don't keep twisting the flexible axle beyond its limit, thus permanently damaging it.)

The "Pin Connector Perpendicular 2 x 2 Bent" is perhaps the most useful structural element available, because it compactly and strongly supports 90-degree changes in direction (structurally), i.e. from horizontal to vertical and vice versa.

In my opinion, the "Pin with Friction Ridges Lengthwise WITHOUT Center Slots" (part #4459) is a MUST-HAVE for all FLL robots. These are identical to the "normal" black friction pins (part #2780) except that they do not have the center slots. Without the center slots, it takes about 10x force to remove them--a very GOOD thing when you want to make sure that parts that are meant to stay together actually stay together. These pins can be thought of as "legal glue" because they grip technic pieces together so well and they are, of course, fully LEGO and thus fully legal.