**Fllying Gecko EV3 Robot by David Luders, Super Garfield Mentor**

This Lego Mindstorms EV3 robot base is good for FIRST Lego League (FLL) competitions. The "Fllying Gecko" features a pivoting This robot features a pivoting EV3 Large Motor that can be adjusted up-and-down using the 44225+44224 "Technic Rotation Joint Disk + 3L Liftarm Thick" combination ( www.bricklink.com/catalogItem.asp?P=44225 and www.bricklink.com/catalogItem.asp?P=44224 ). The yellow support stilts supporting the auxiliary EV3 Large Motor can be lengthened from 5L to 15L, or even longer. The EV3 Medium motor can accommodate attachments easily. Besides having two EV3 Color Sensors, there is an EV3 Gyro Sensor buried deep between the two drive wheels. The front and rear bumpers allow for "squaring up" against the walls of the FLL Robot Game field. The red "Technic Pins with Bushes" allow for the quick-disconnect of the EV3 programmable brick, to make battery replacement easy. The central green Liftarm can be adjusted sideways, back-and-forth (as necessary) for attachments. The Tan L-Shaped Liftarms next to the EV3 Medium Motor are handy to secure attachments.

To make the robot sit more level, consider replacing the standard EV3 robot's wheels with the slightly-smaller 6595 wheel ( www.bricklink.com/catalogItem.asp?P=6595 ) or 22253 wheel ( www.bricklink.com/catalogItem.asp?P=22253 ) and the 6594 tire, 49.6 x 28 VR ( www.bricklink.com/catalogItem.asp?P=6594 ).

For clarity, the EV3 Connector Cables are not shown here; you will need 7 cables (for 4 motors + 3 sensors).