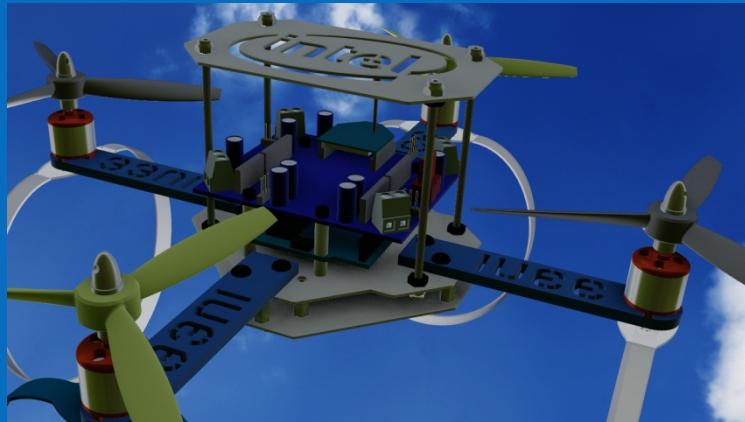


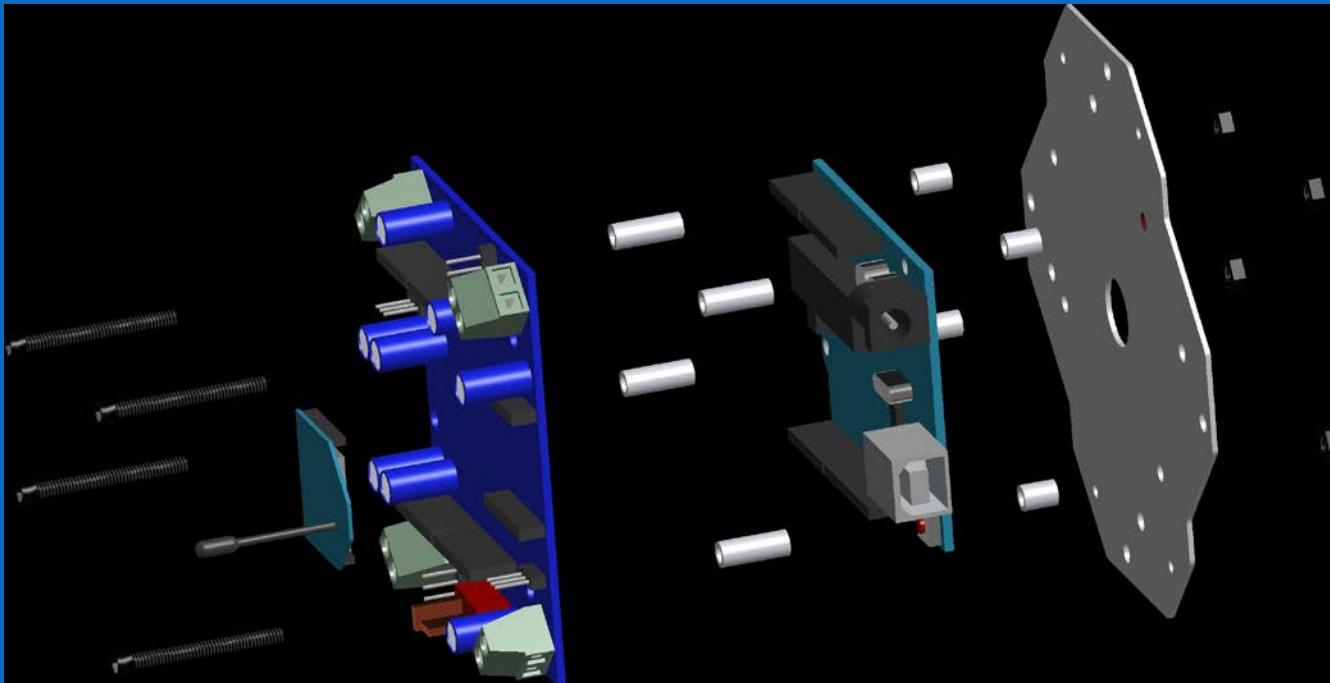
Session Two

Assembly

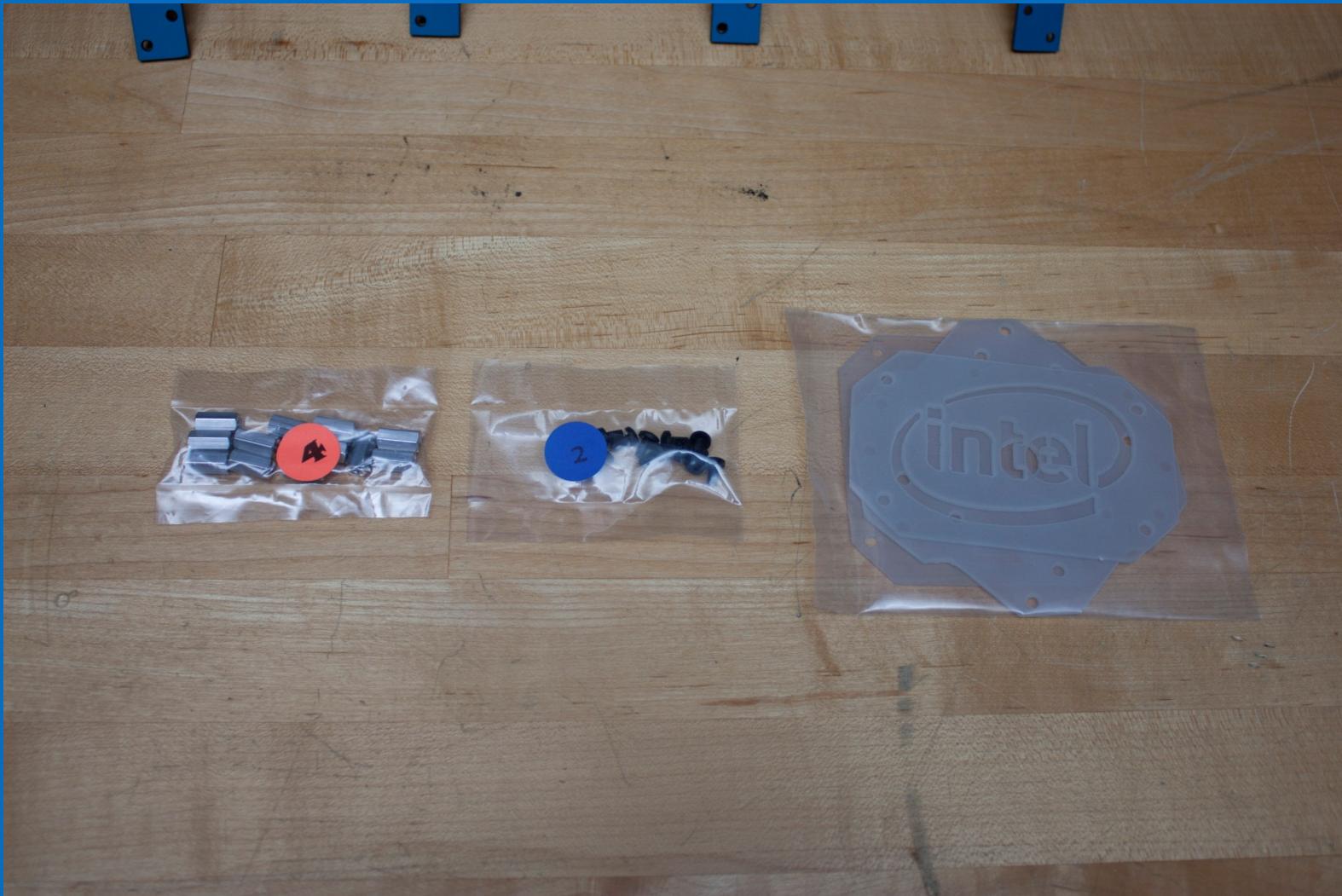
Robotics Week Instructor
Joy Shetler, PhD



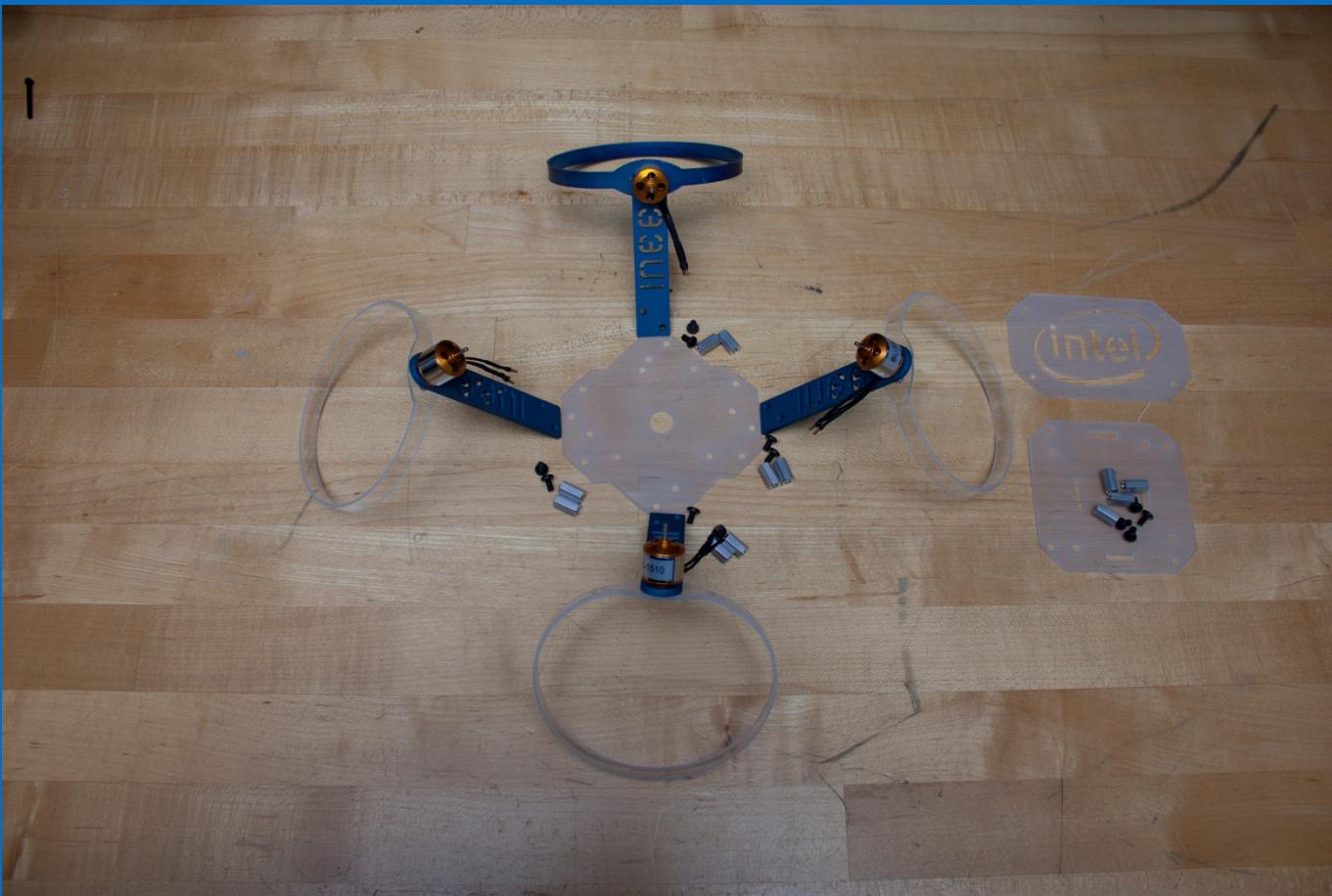
Assemble Frame & Electronics



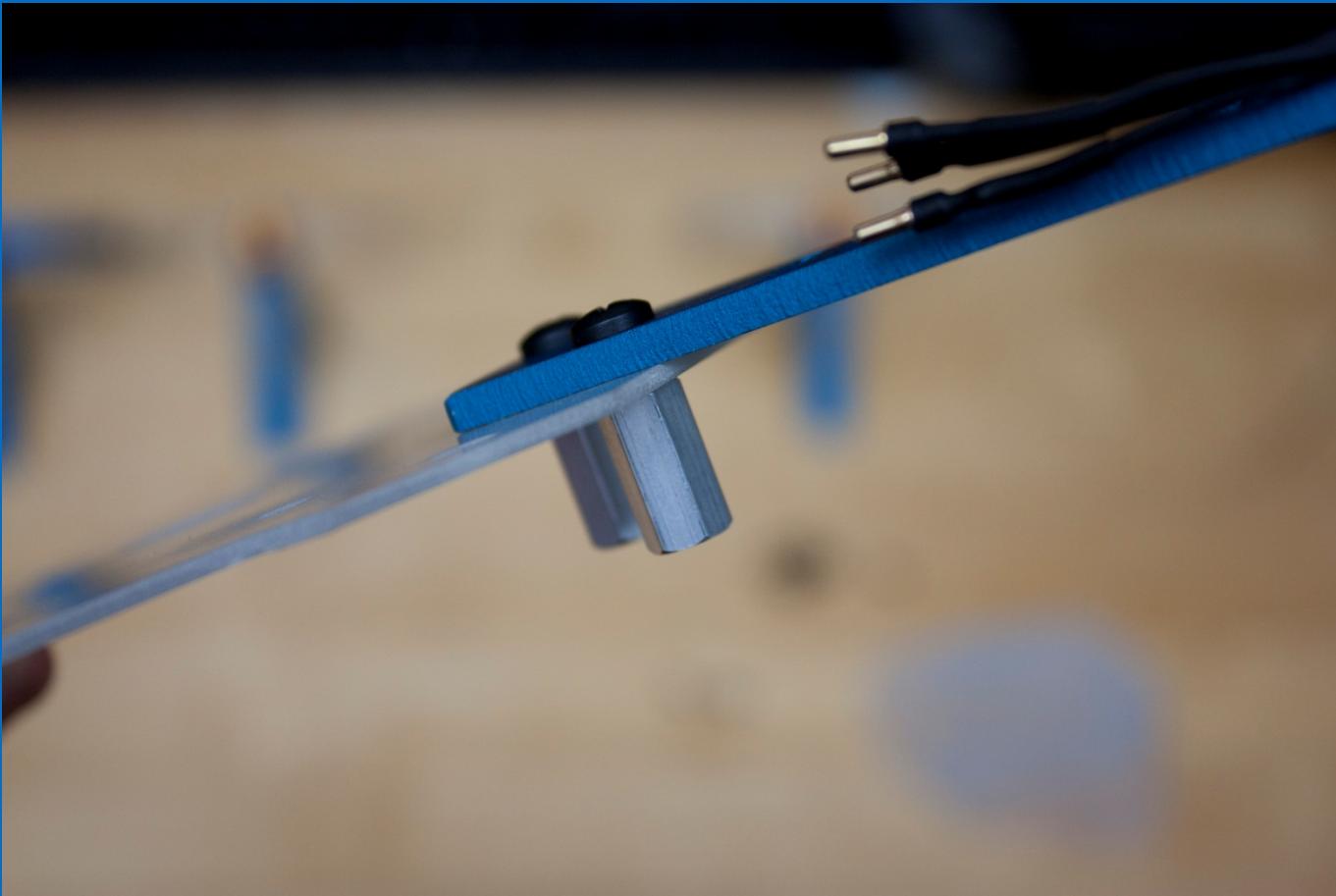
Locate Frame Base Parts



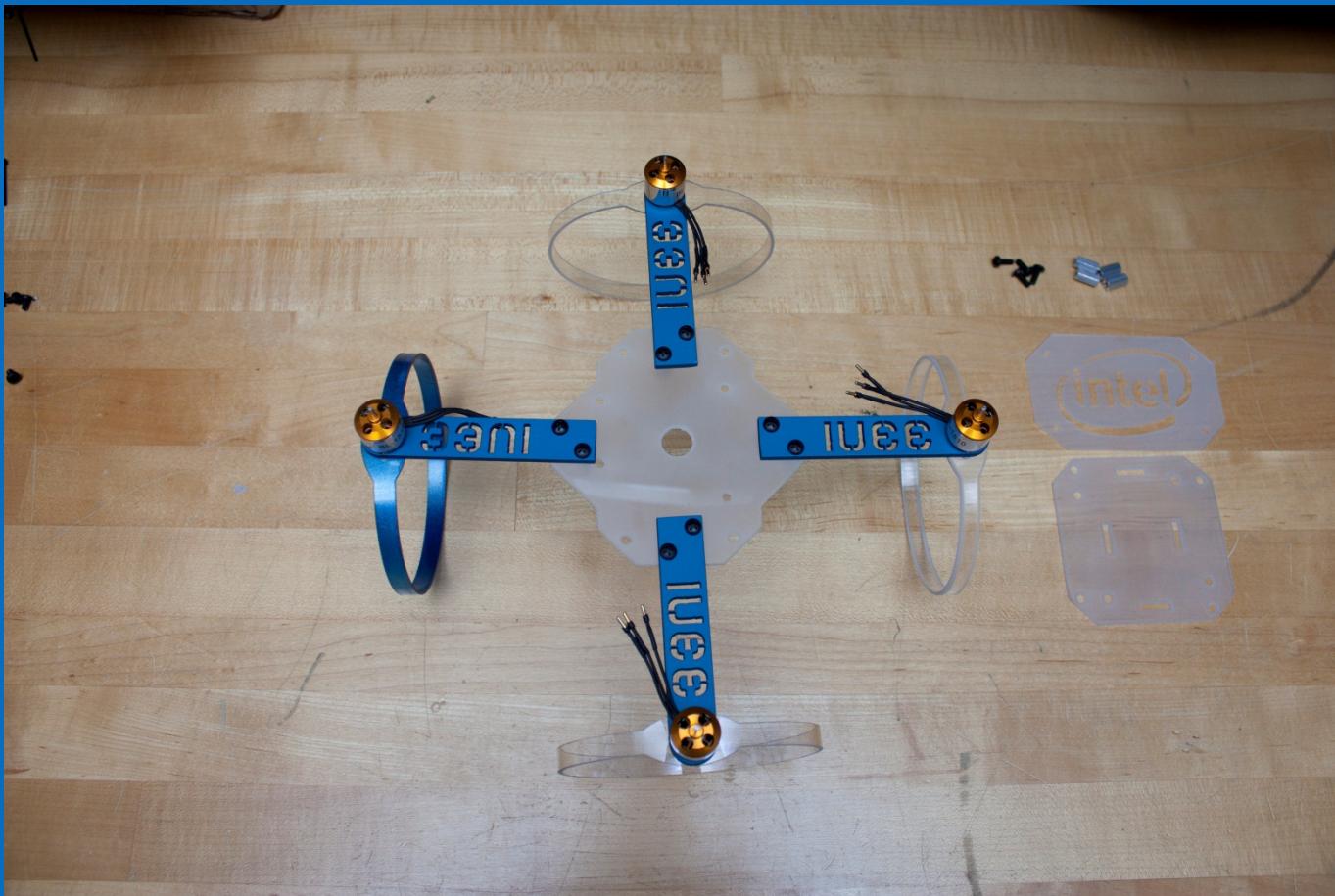
Position Propulsion Systems with Frame Base



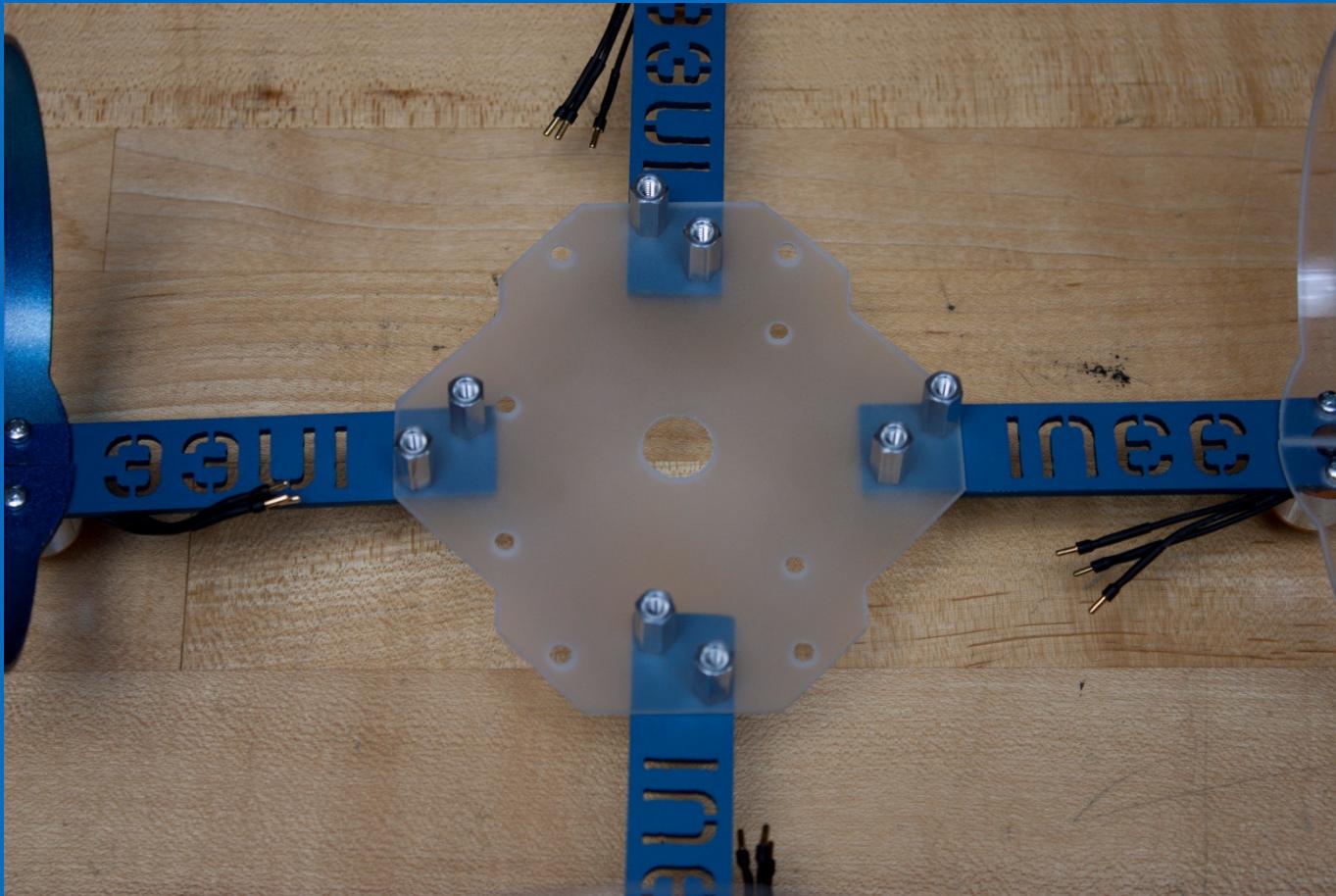
Attach Propulsion Arms to Frame Base



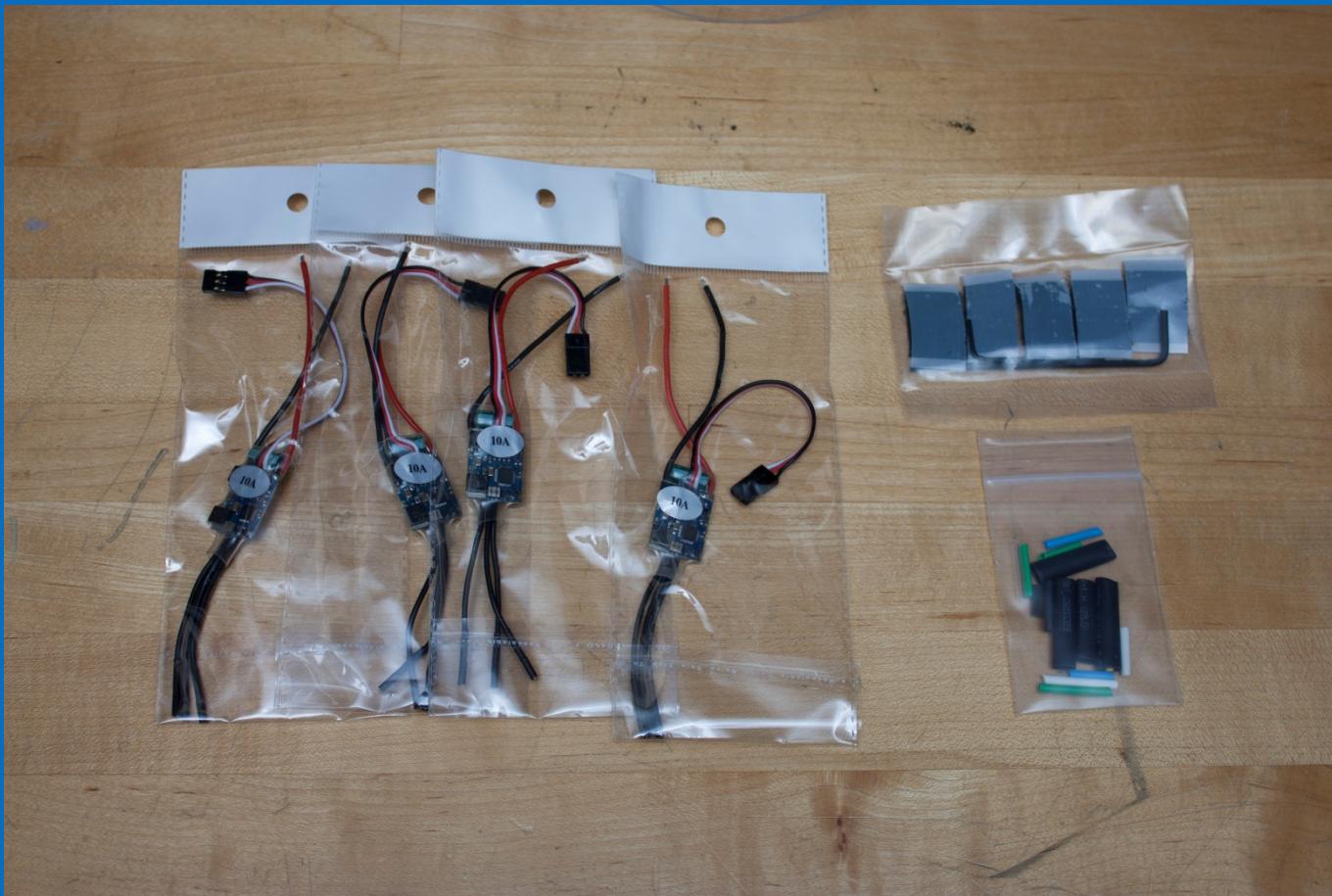
Propulsion Arms Attached to Frame Base



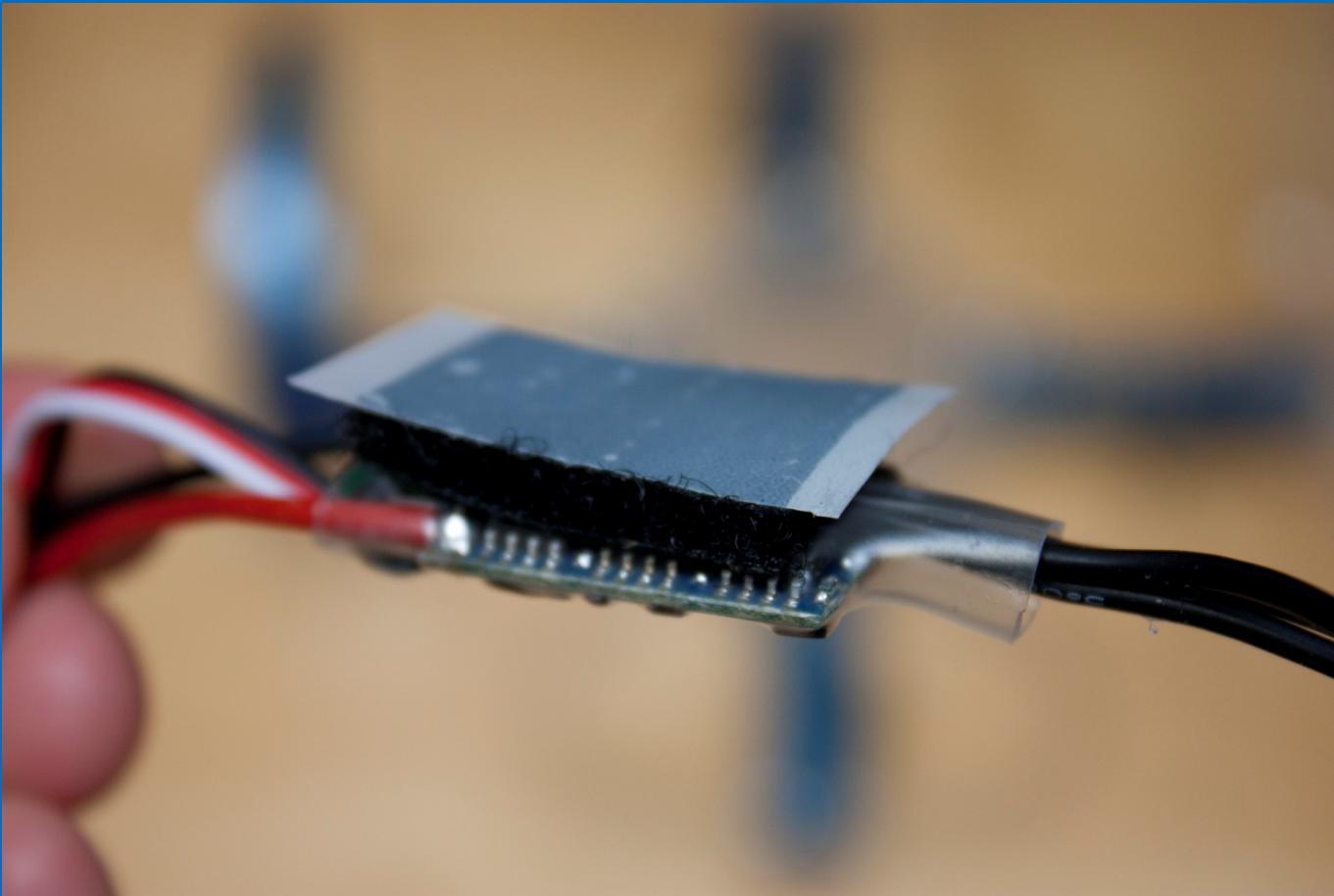
Bottom View



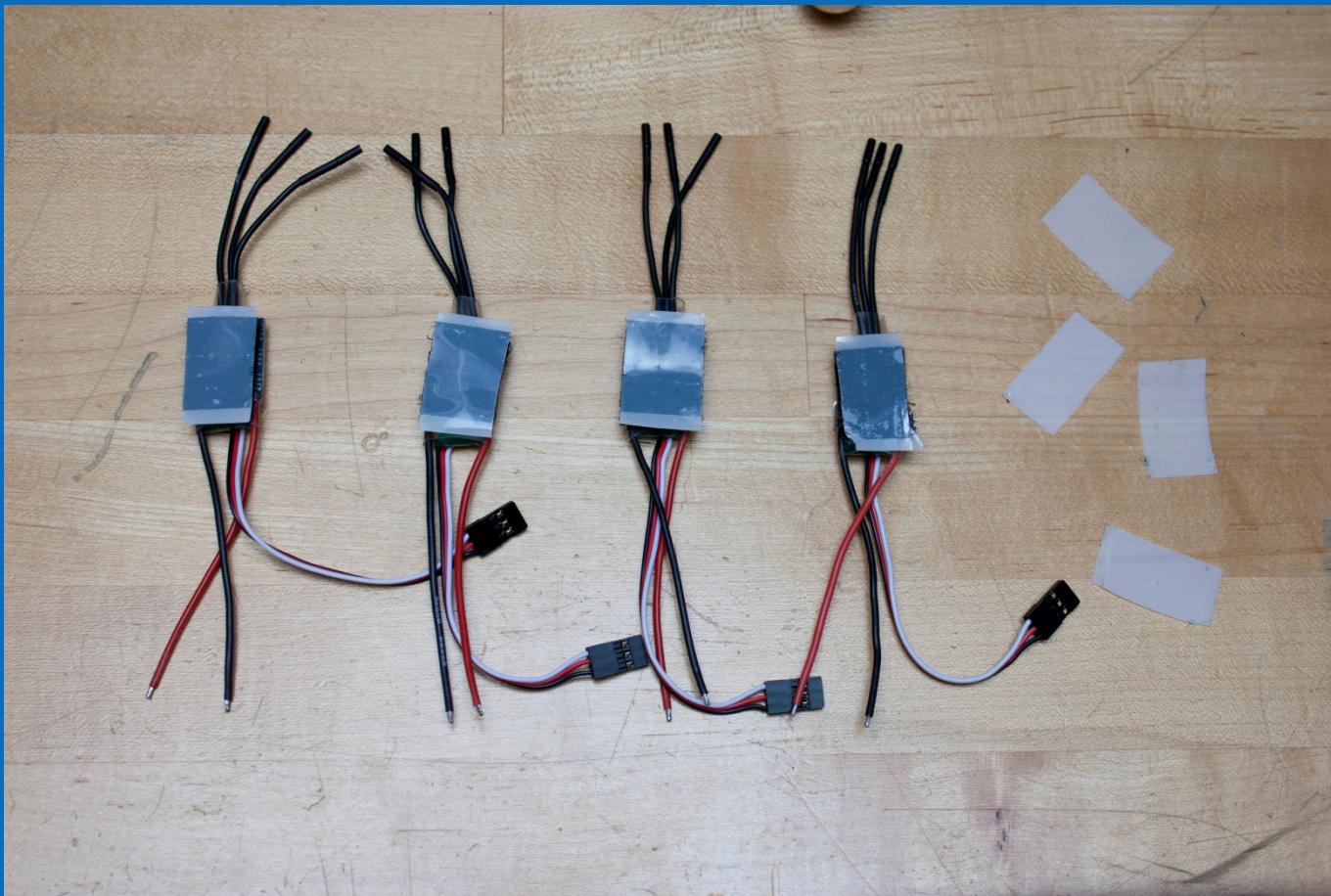
Locate Electronic Speed Controllers (ESC)



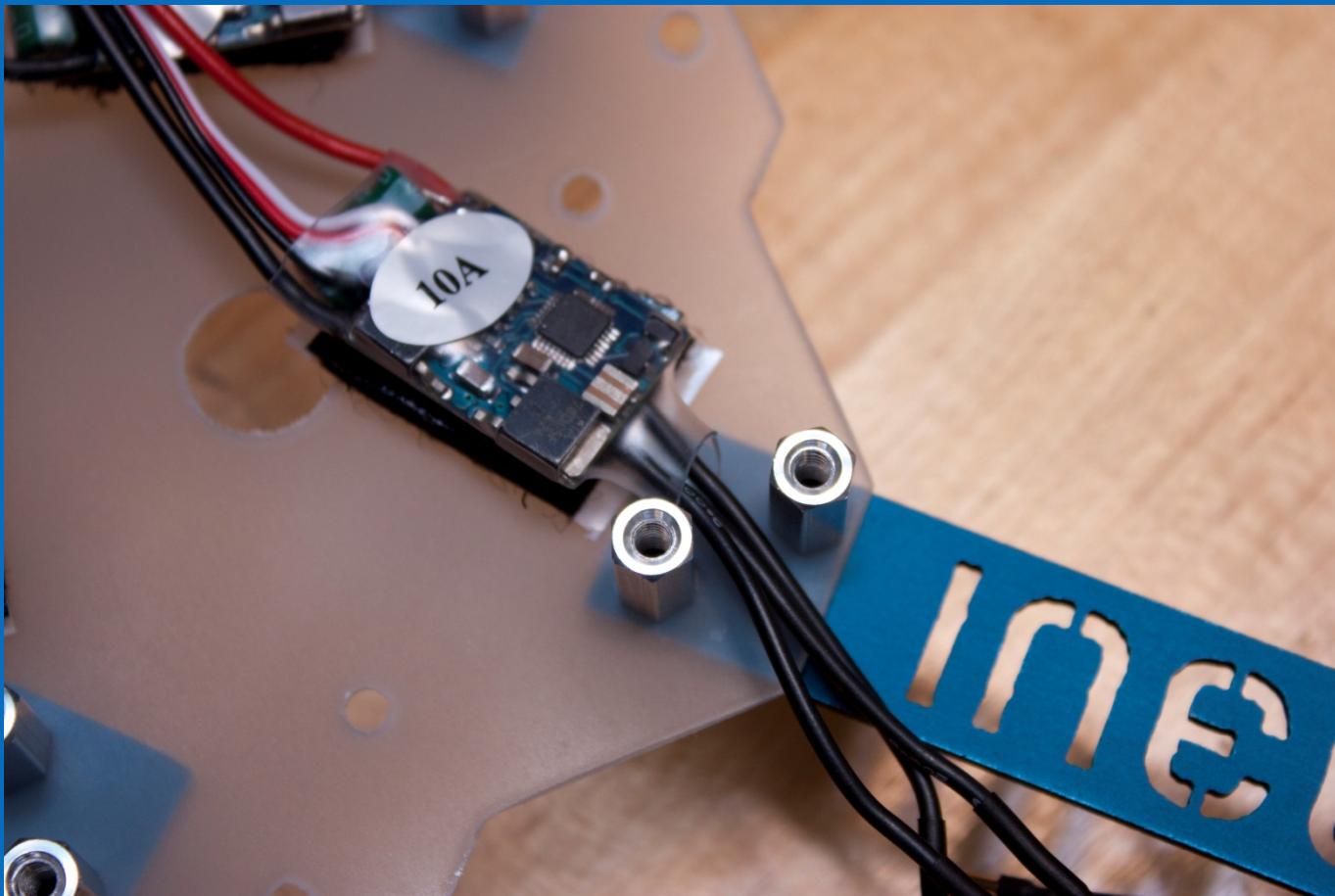
Apply Velcro Tape to ESC



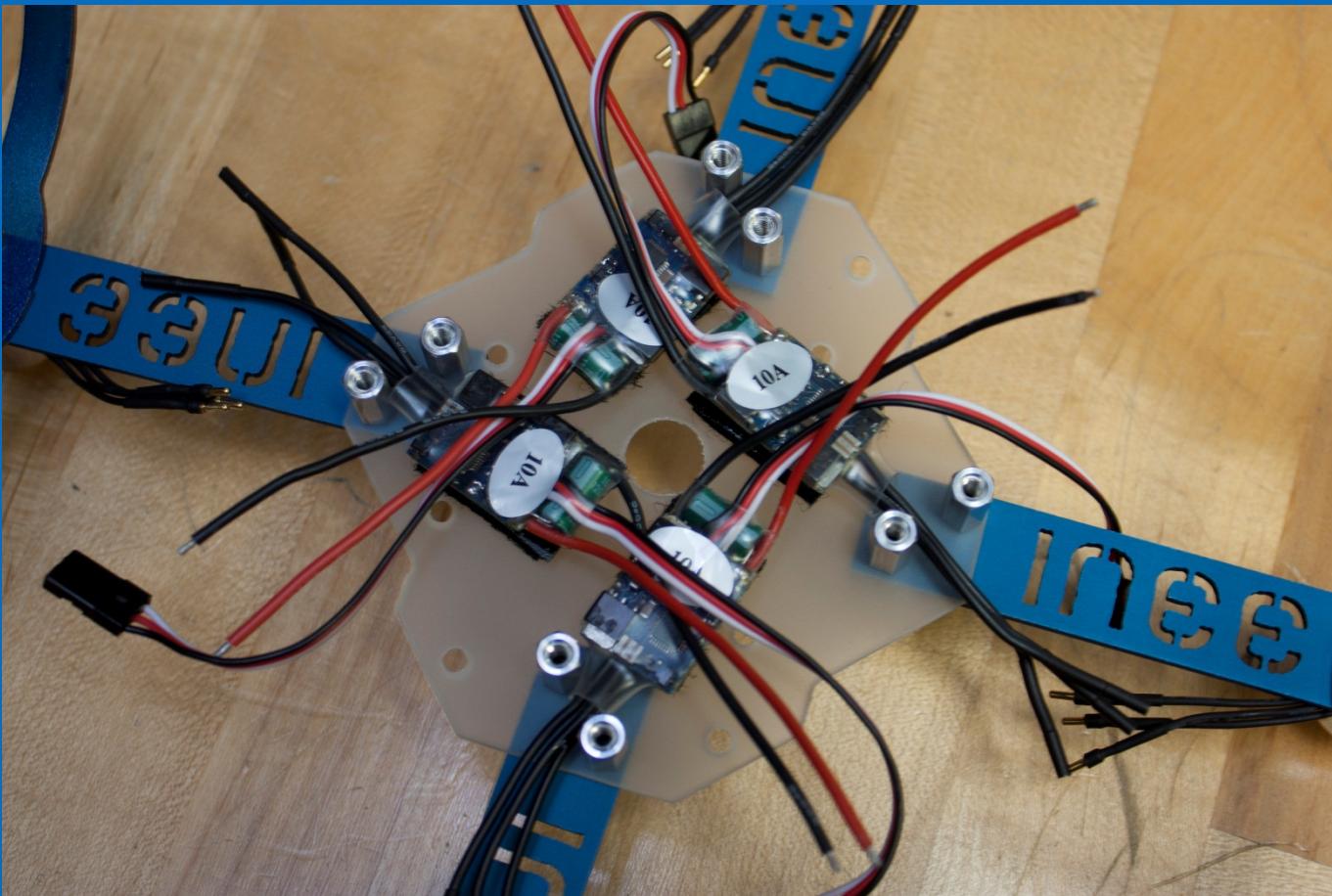
Electronic Speed Controllers (ESCs) with Velcro Tape Attached



Attach ESC to Bottom of Frame Base with Velcro Tape (avoid covering holes)



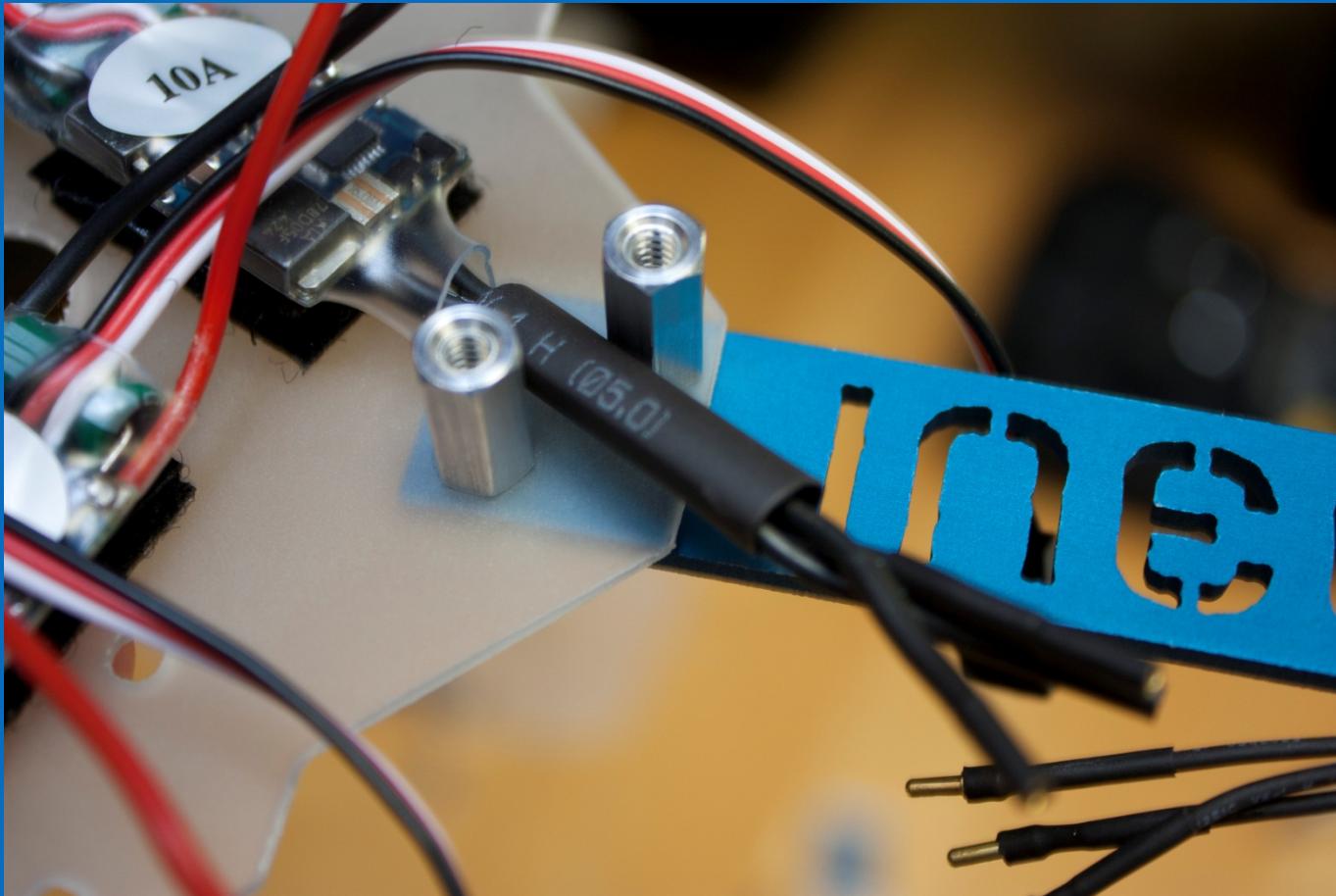
Orient ESC Modules As Per Below



Locate Heat Shrink Tubing



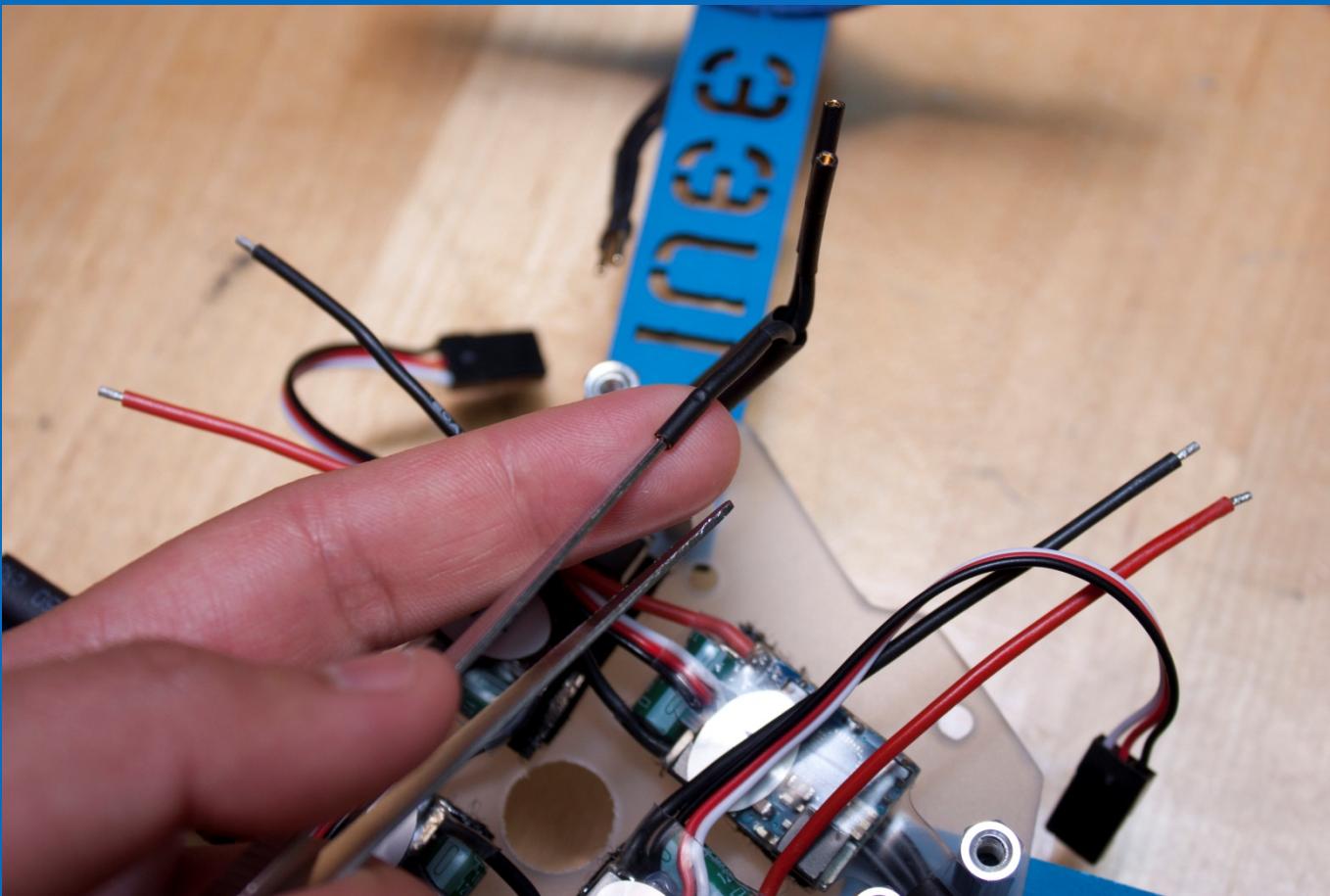
Insert ESC Black wires through heat shrink tubing, slide tubing back out of the way.



Attach Black ESC wires to Black Motor wires (mating order is not important)



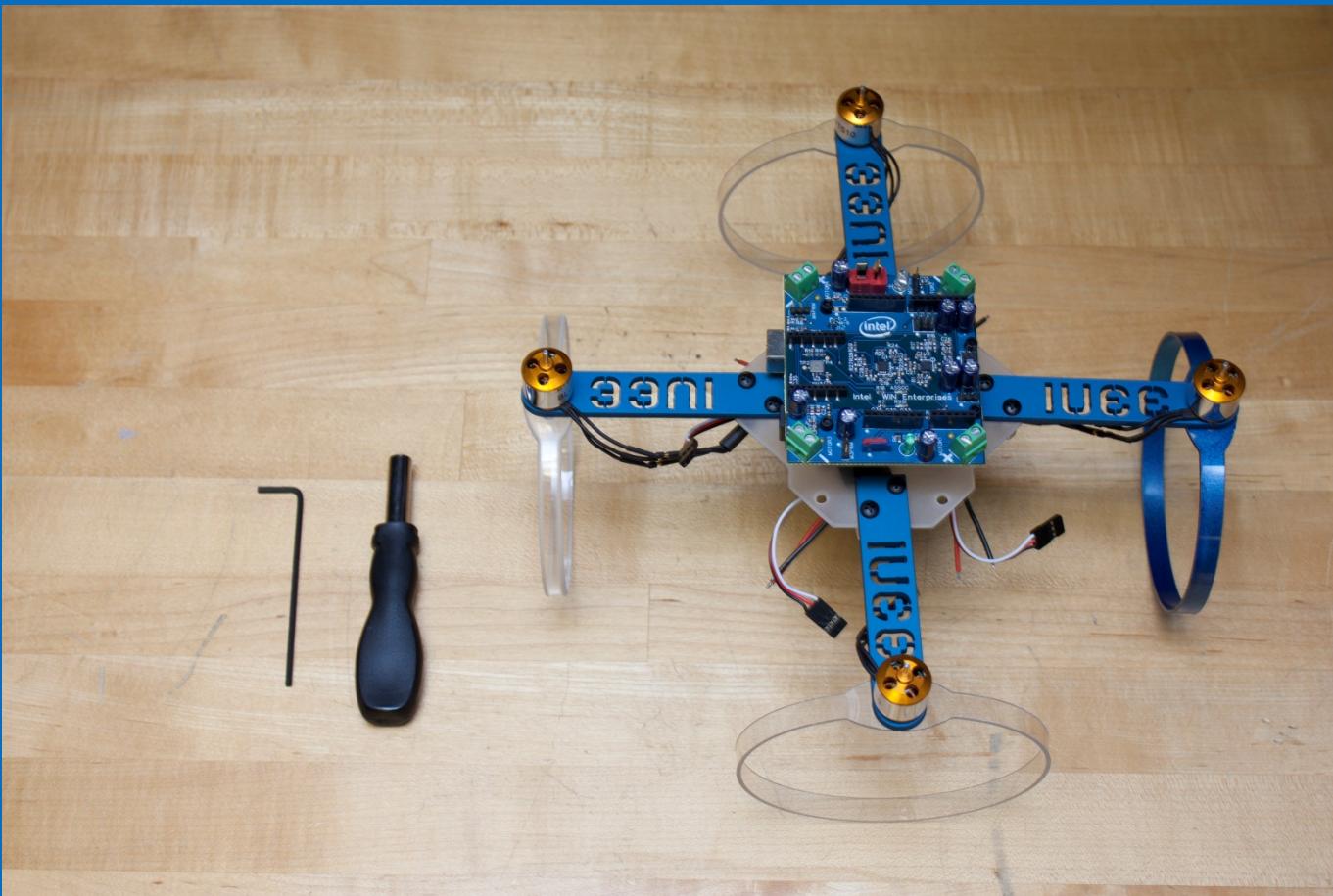
If ESC wire socket holes are bent,
CAREFULLY straighten with tweezers.



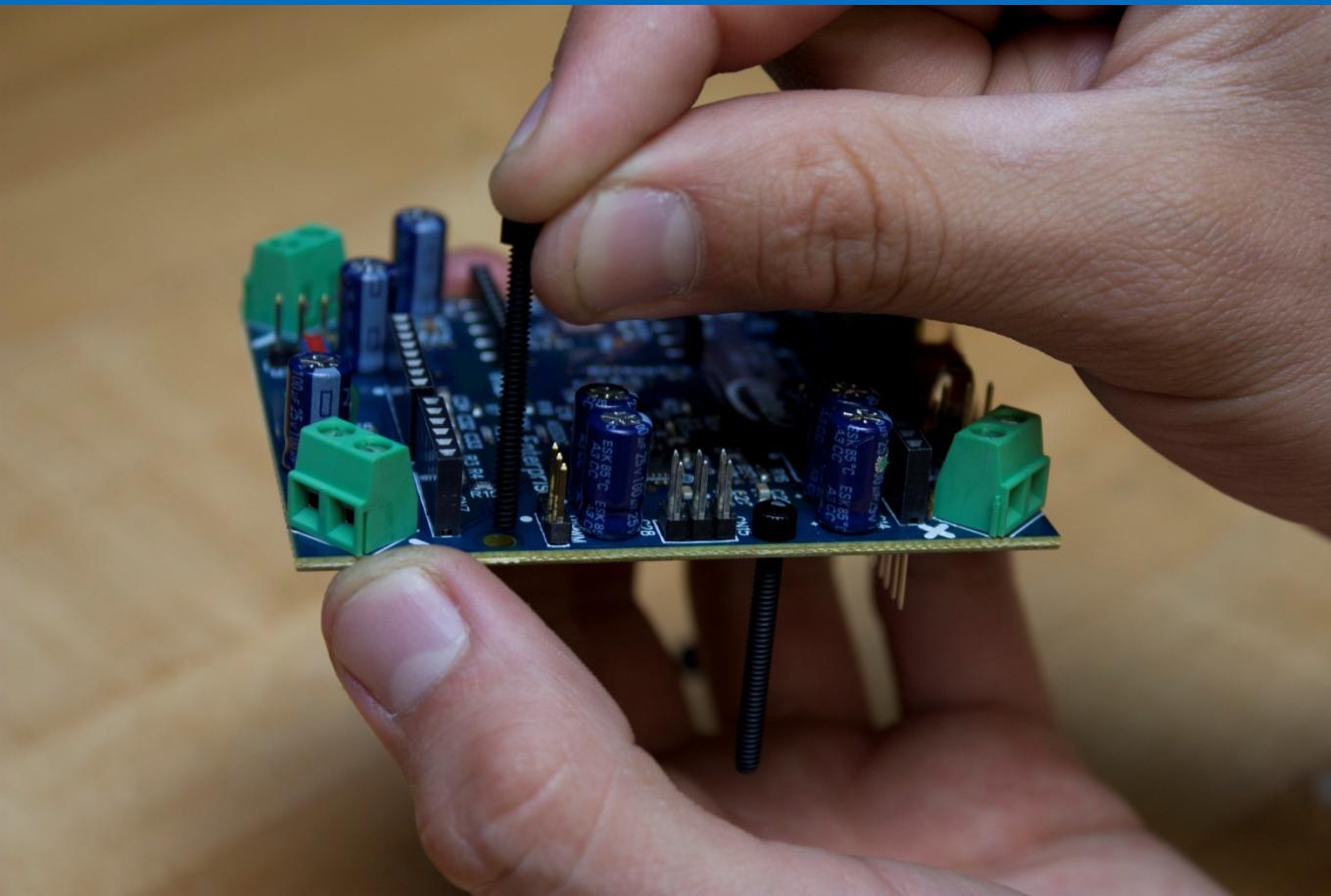
Locate Electronics and Electronic Assembly Components



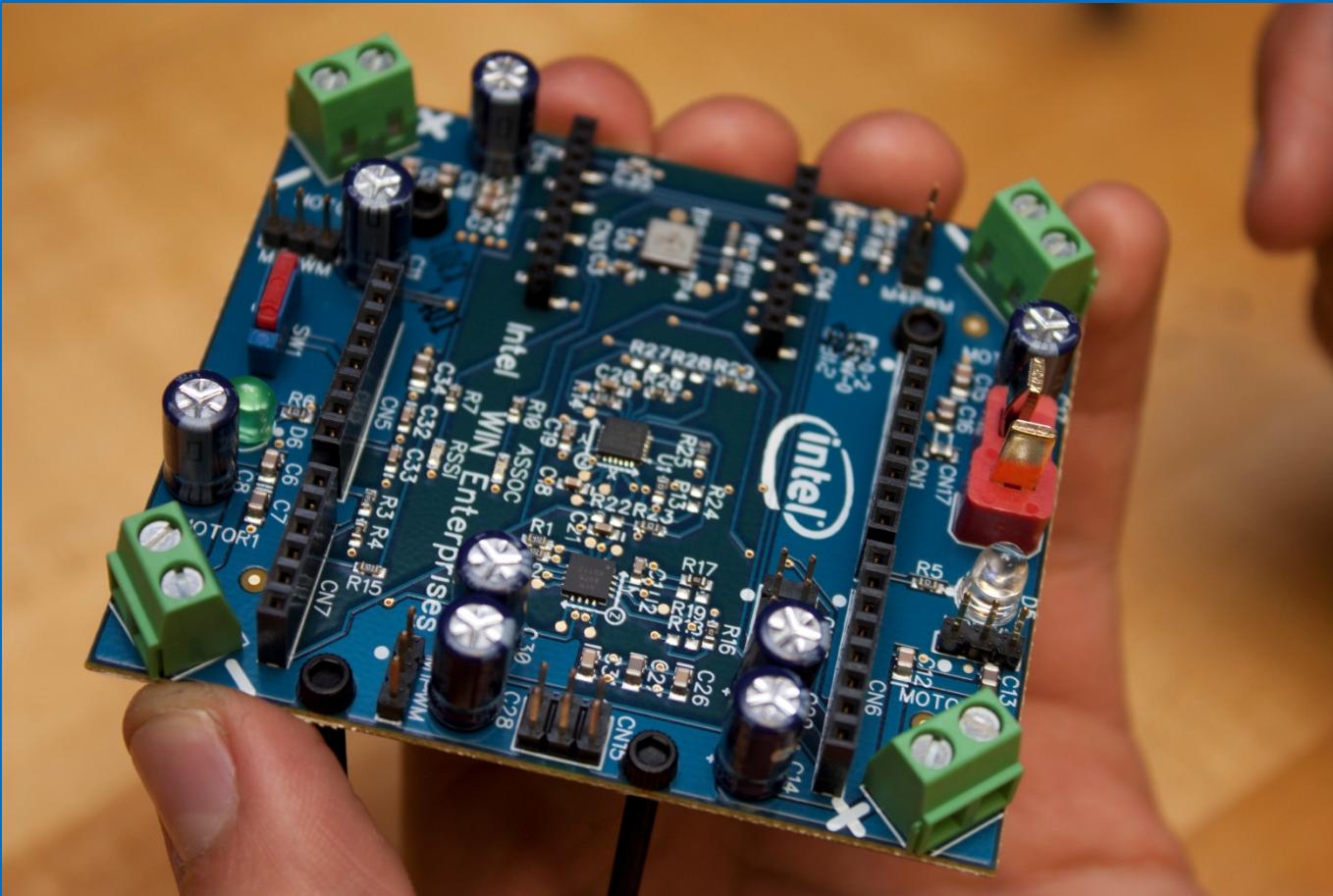
Locate Tools For Electronics Assembly



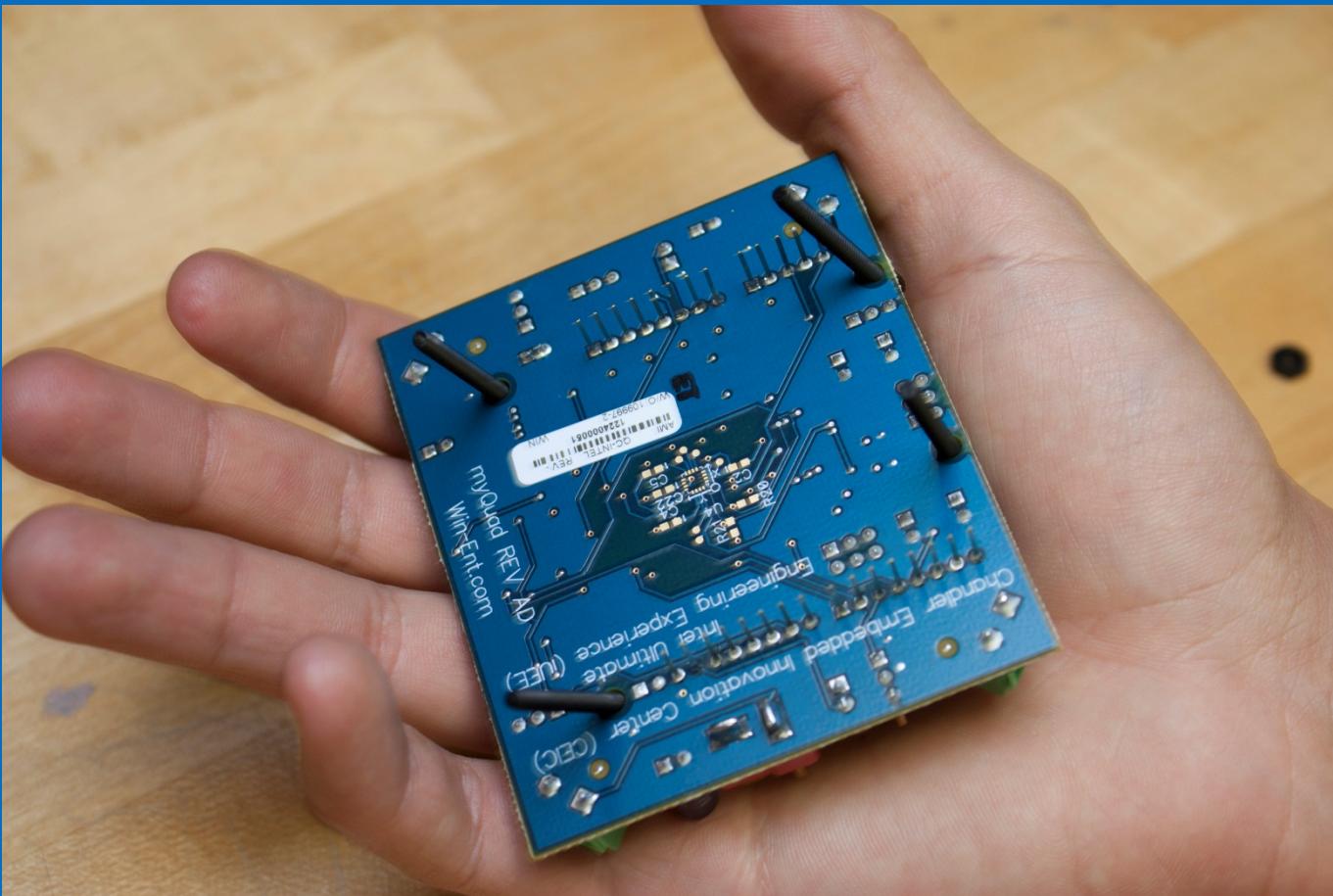
Insert The Four Long Mounting Bolts Through myQuad Shield



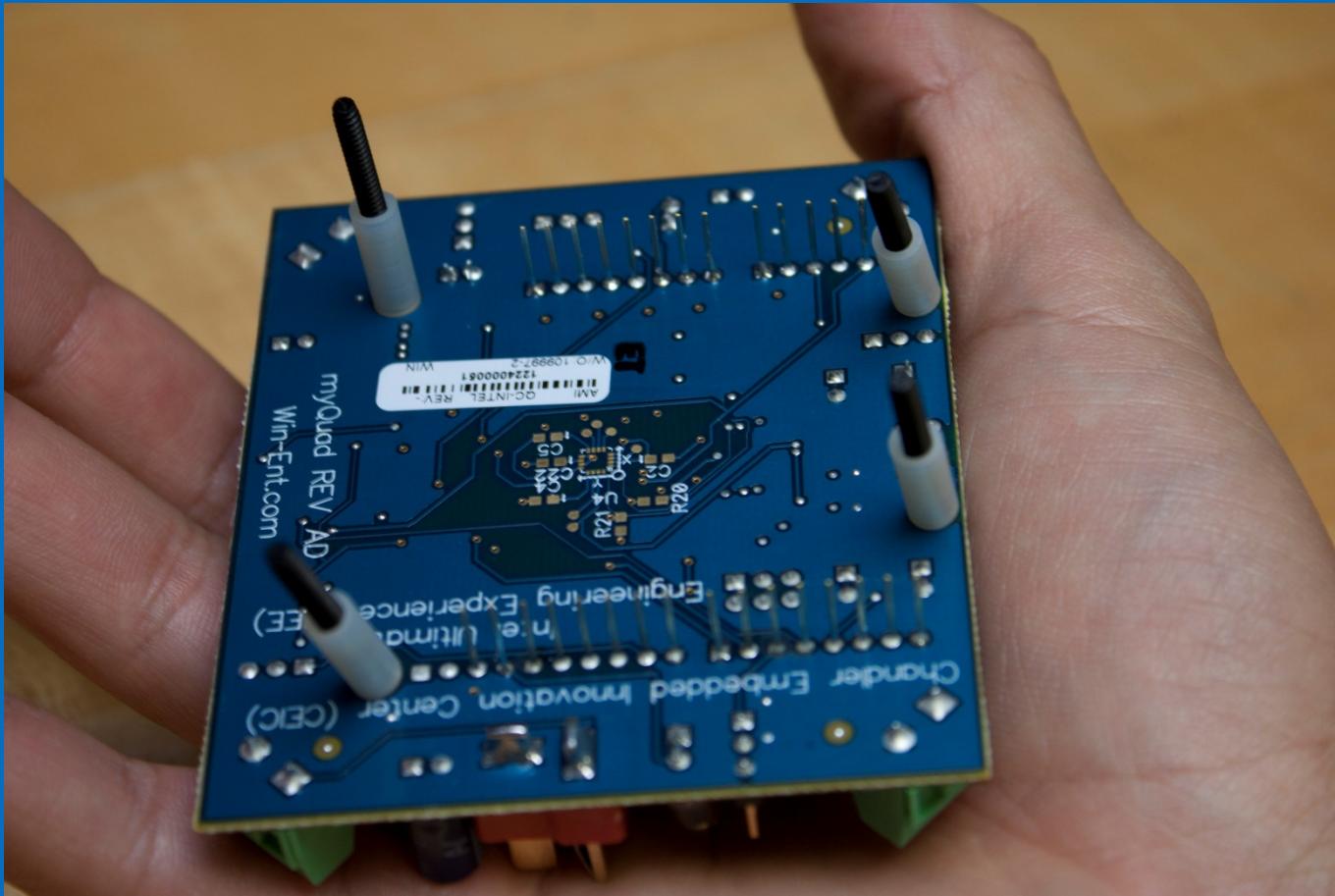
All Four Mounting Bolts Inserted



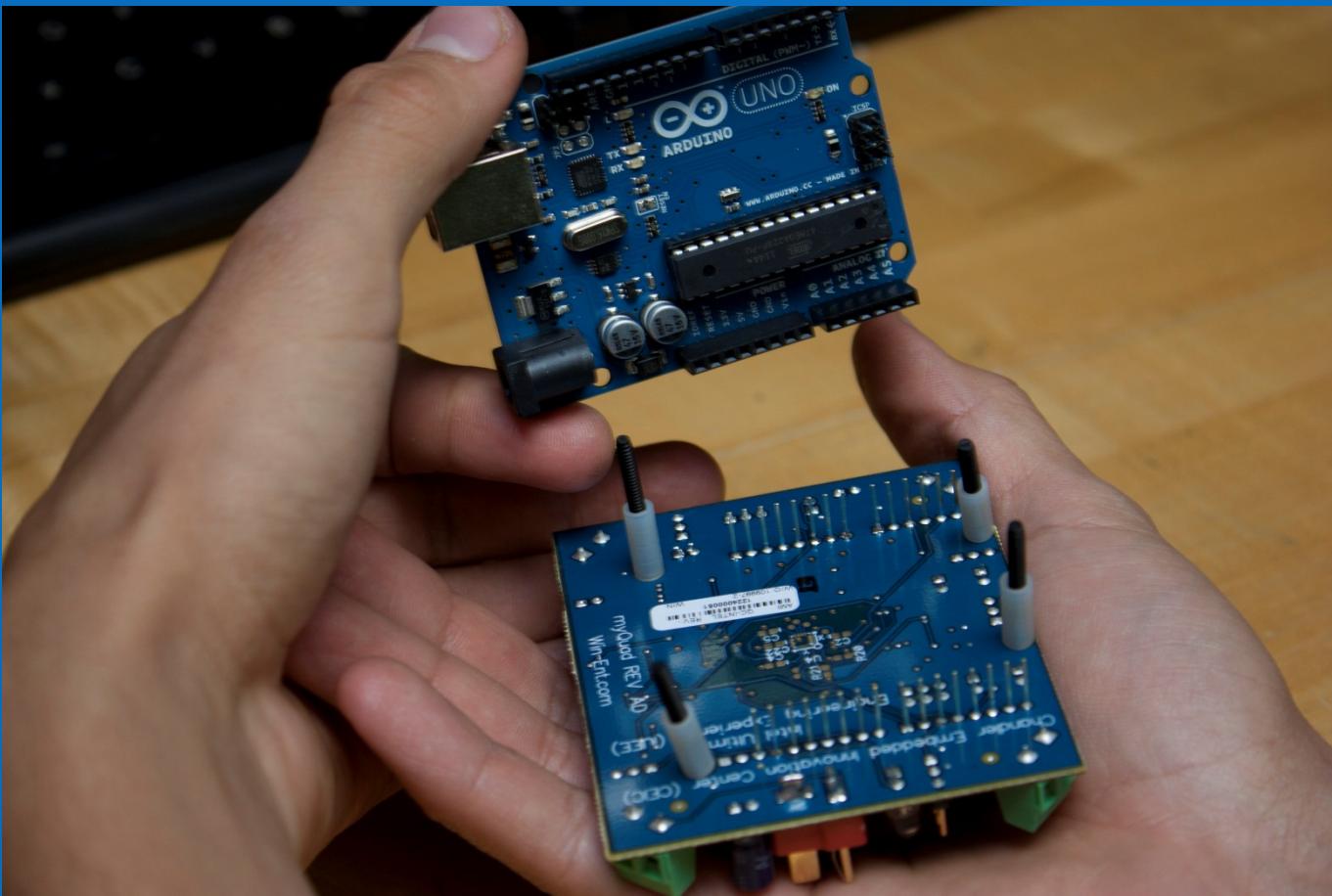
Back Side of Shield with All Four Mounting Bolts Inserted



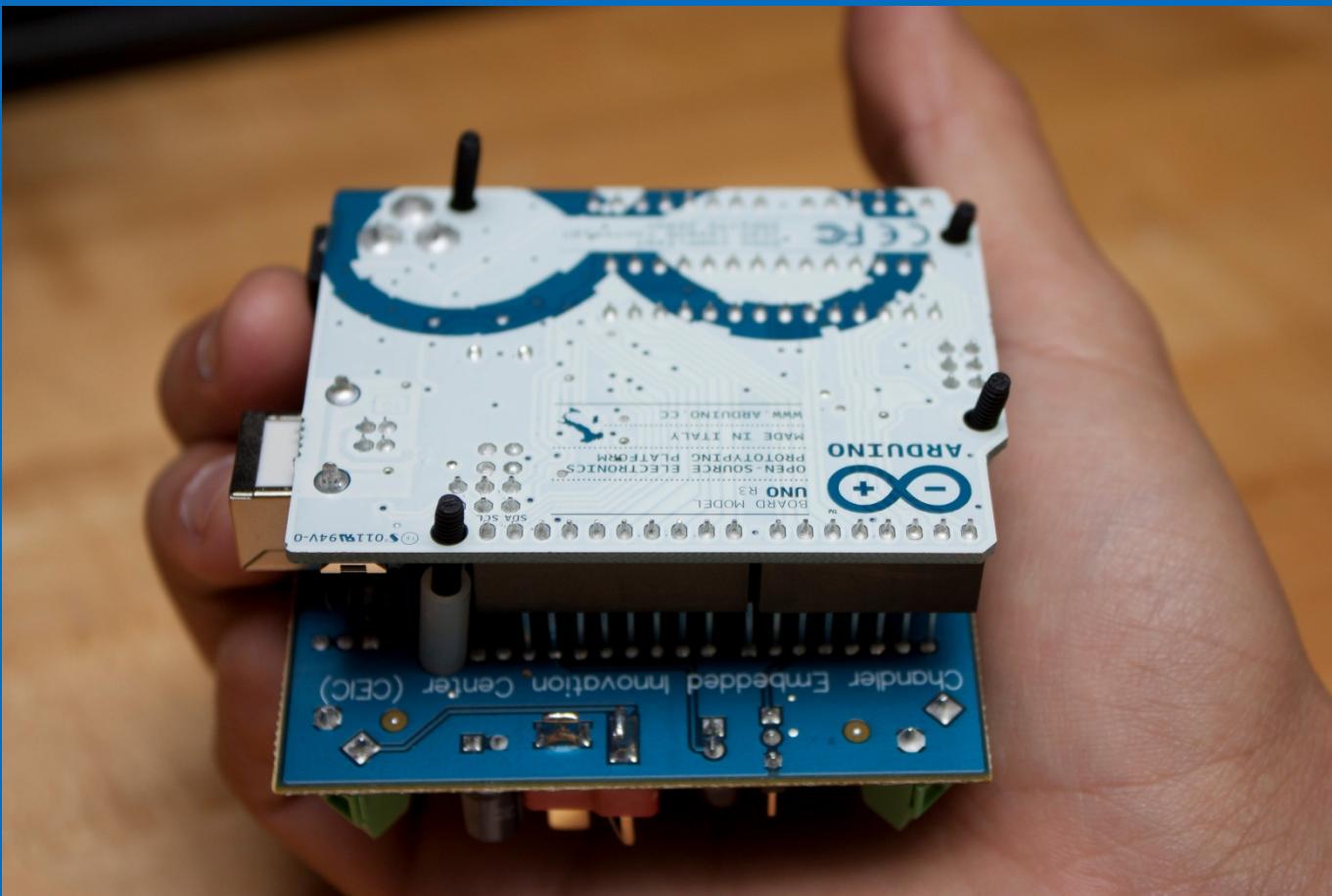
Slide Long Spacers Onto the Four Mounting Bolts



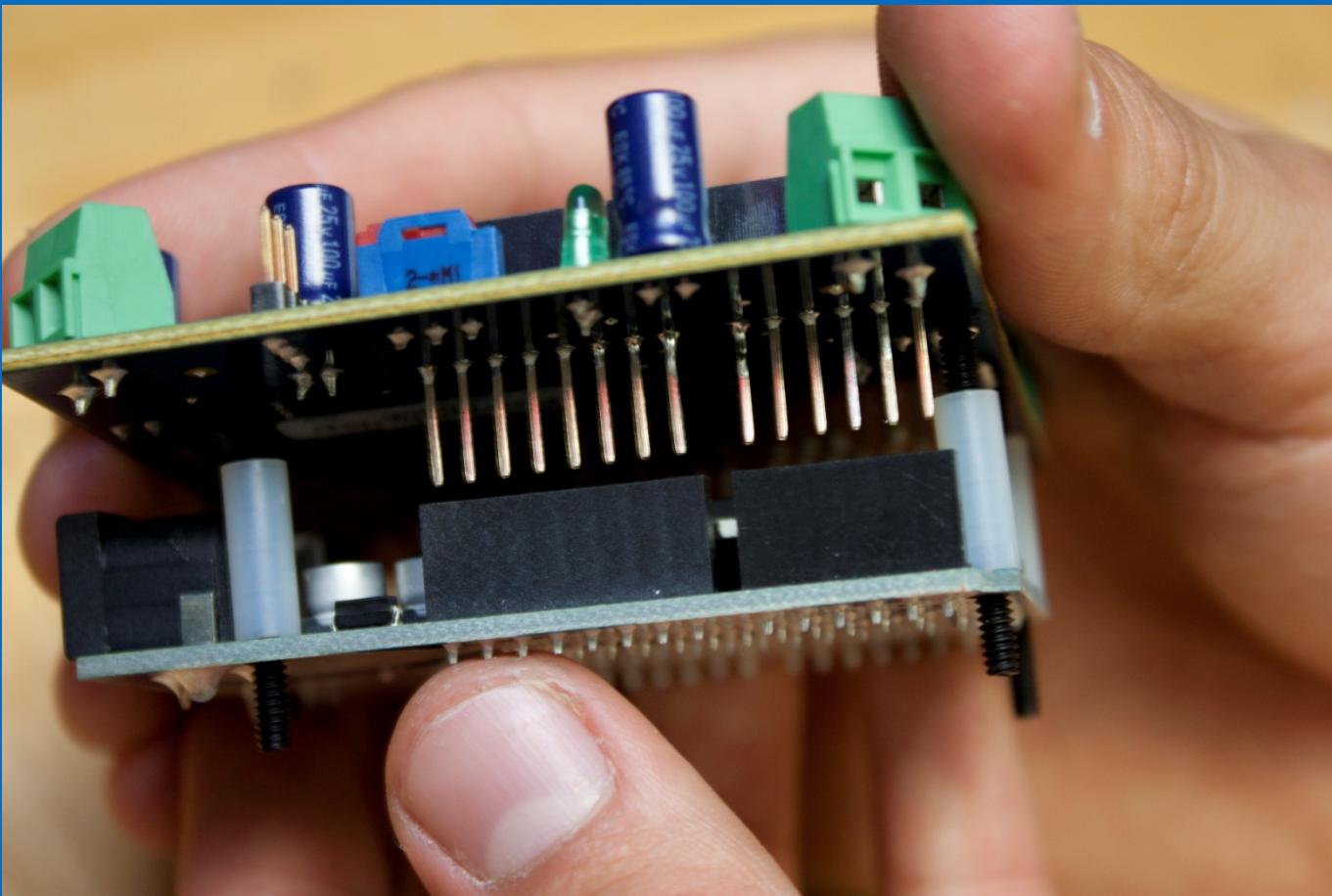
Slide The Four Mounting Bolts Through Arduino Board Mounting Holes



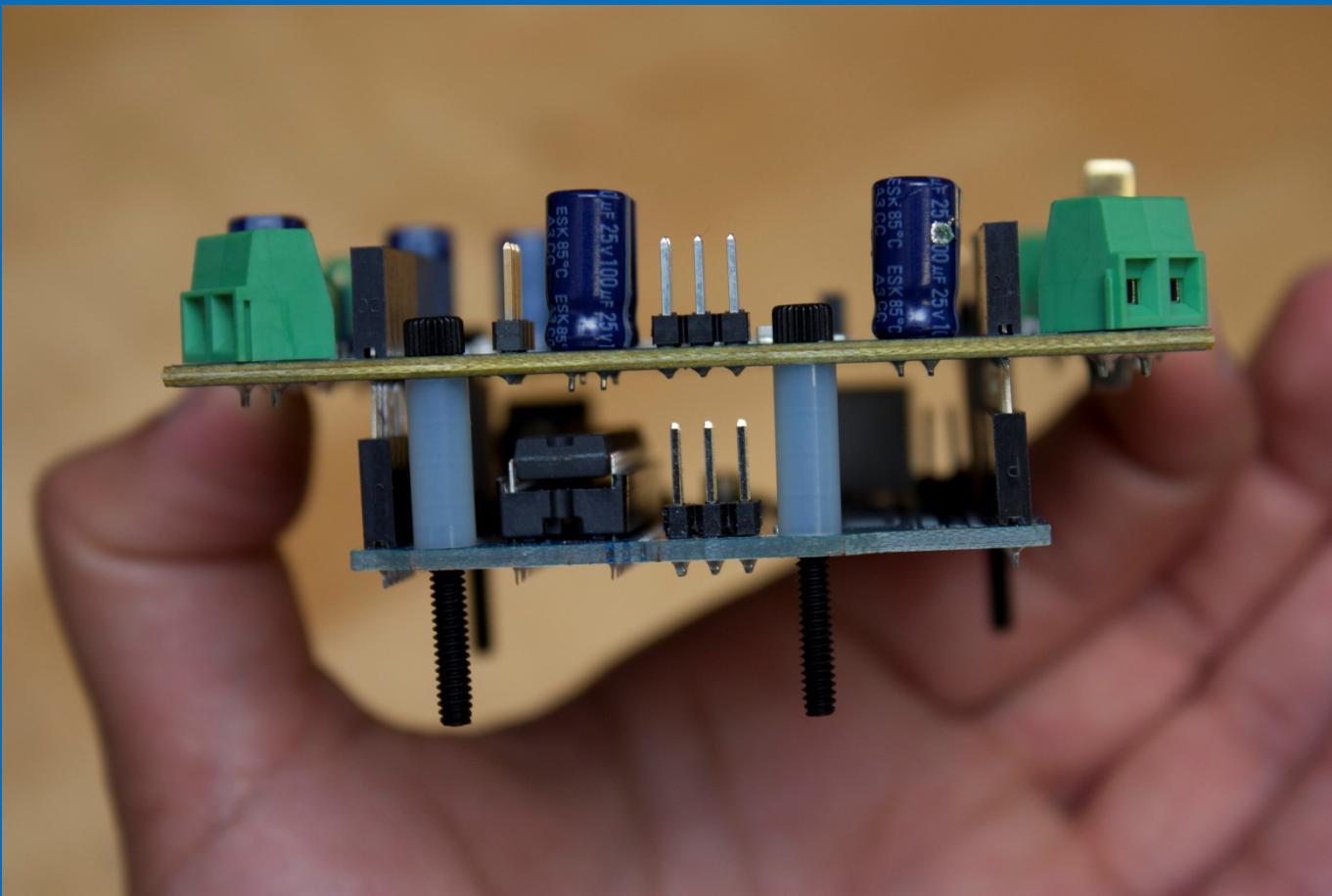
Four Mounting Bolts Through Arduino Mounting Holes



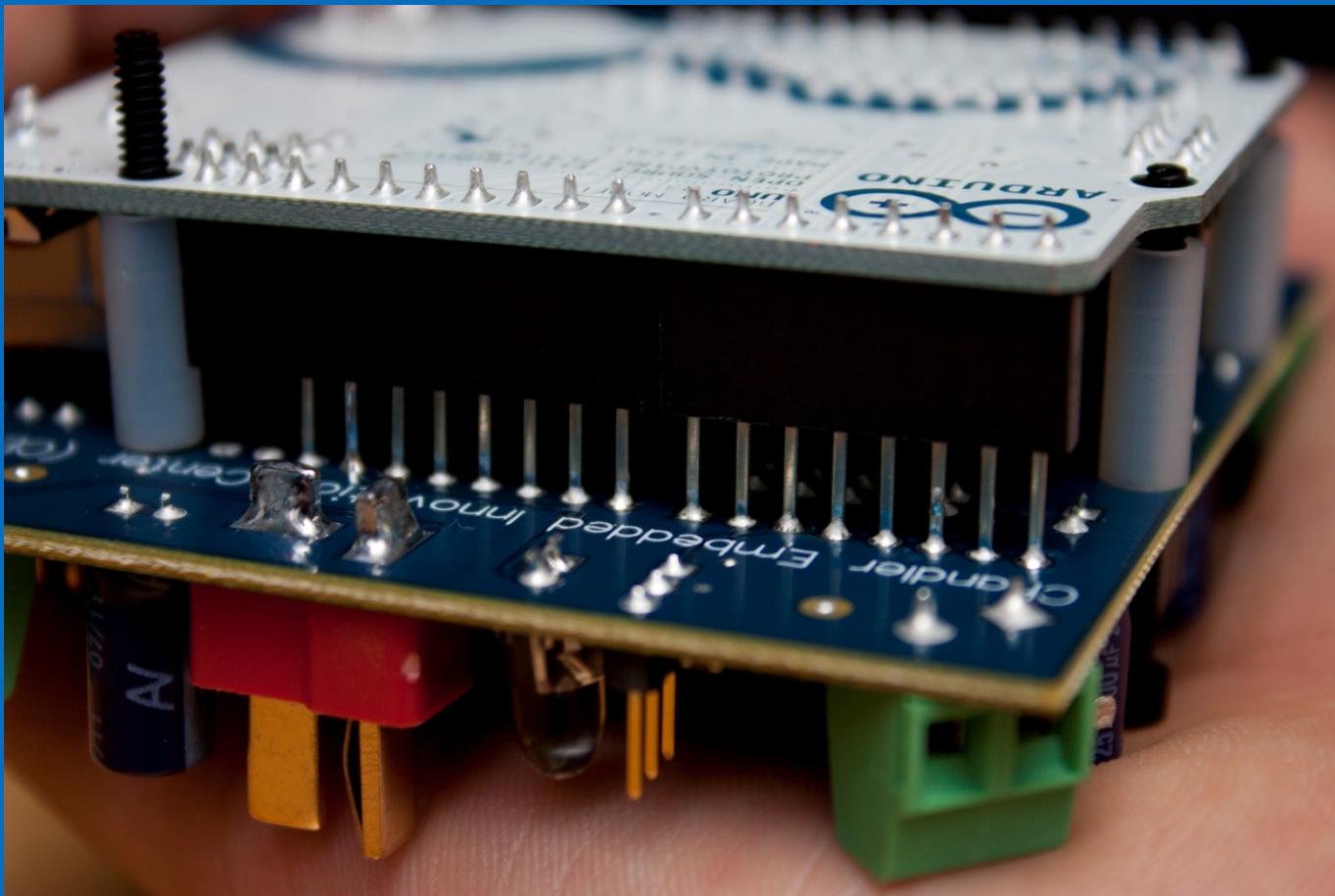
CAREFULLY line Shield Pins with the Sockets on the Arduino Board



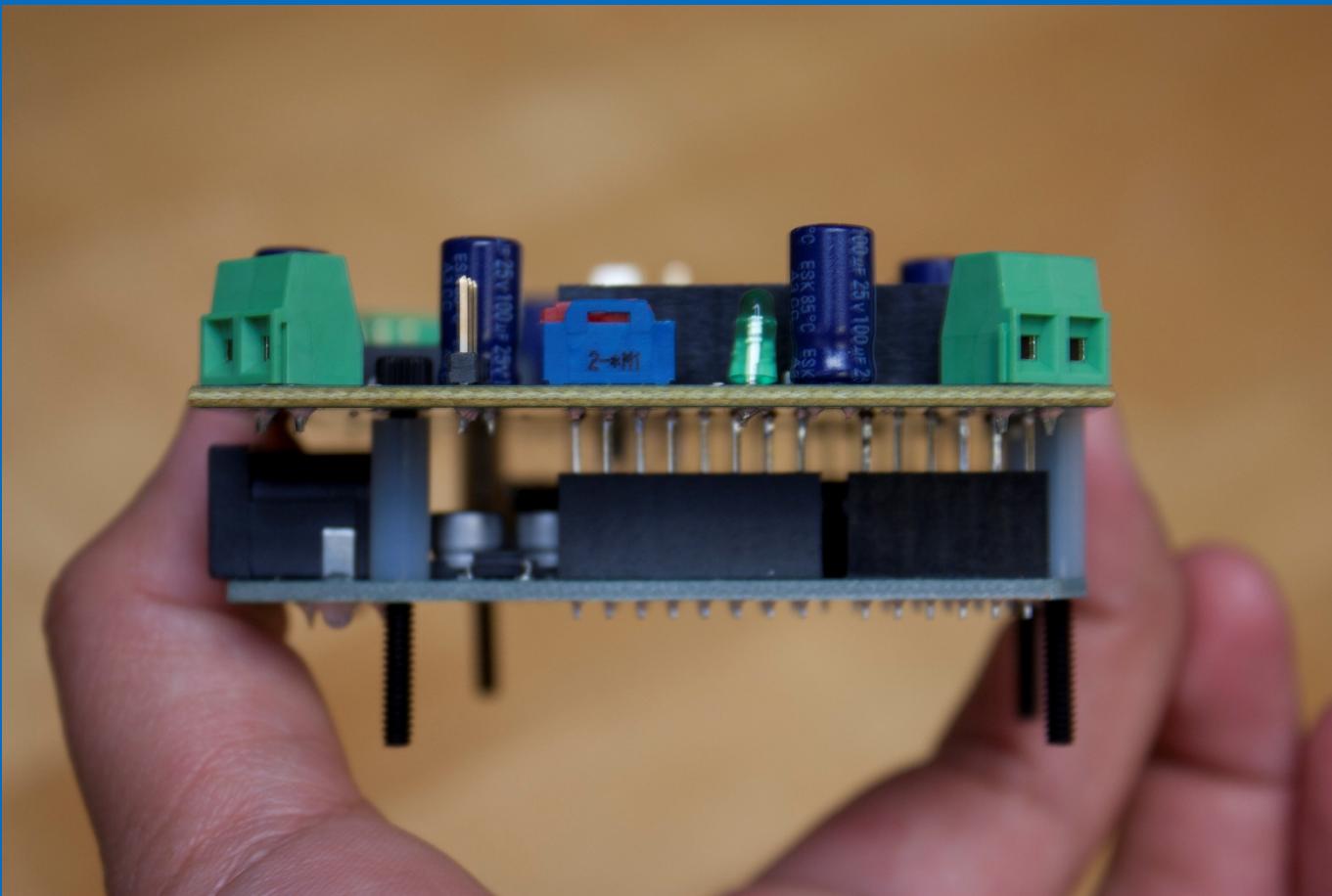
CAREFULLY line Shield Pins with the Sockets on the Arduino Board



Once Aligned, CAREFULLY Press Shield Pins into Arduino Sockets



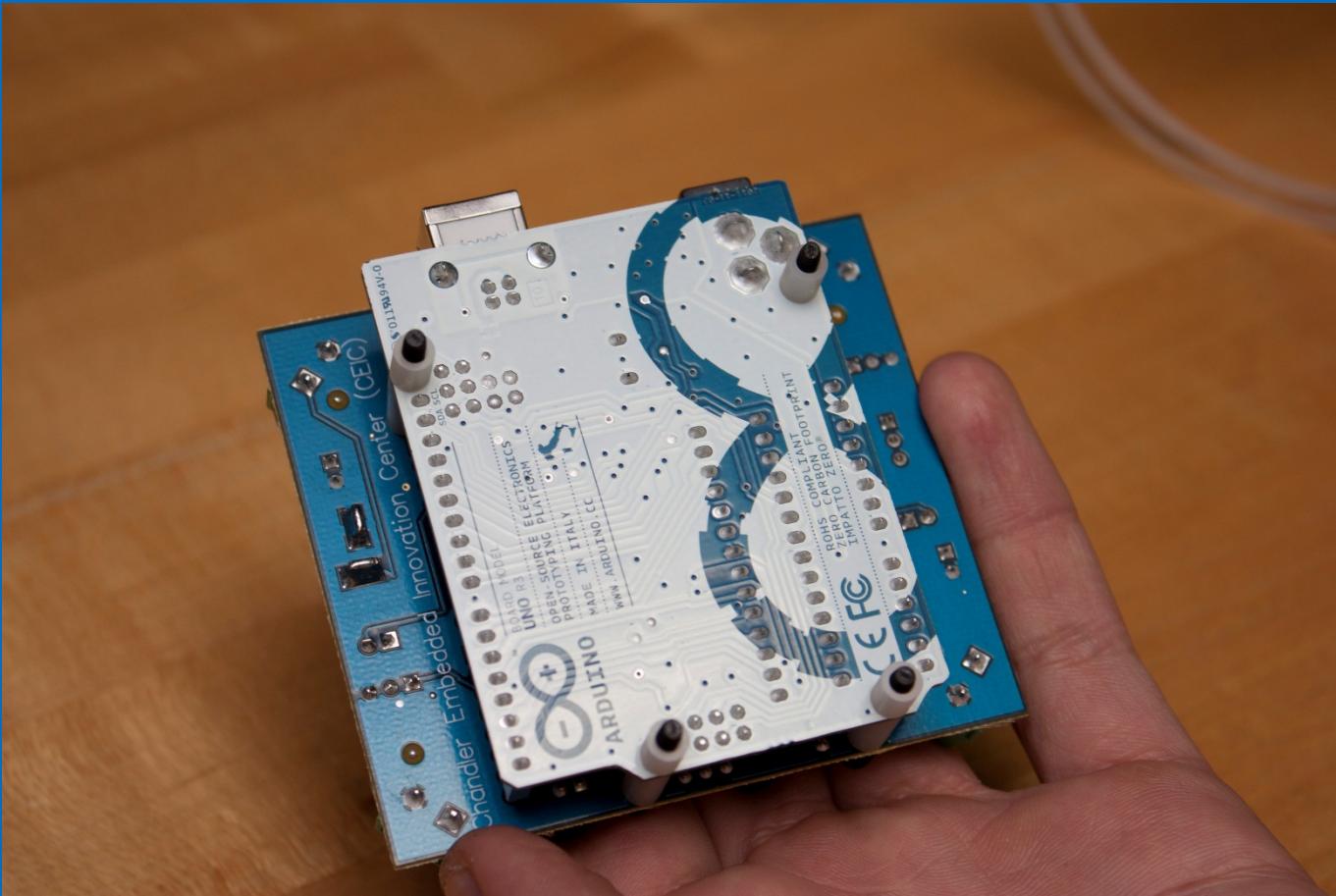
Once Aligned, CAREFULLY Press Shield Pins into Arduino Sockets



Slide Short Spacers Onto Four Mounting Bolts



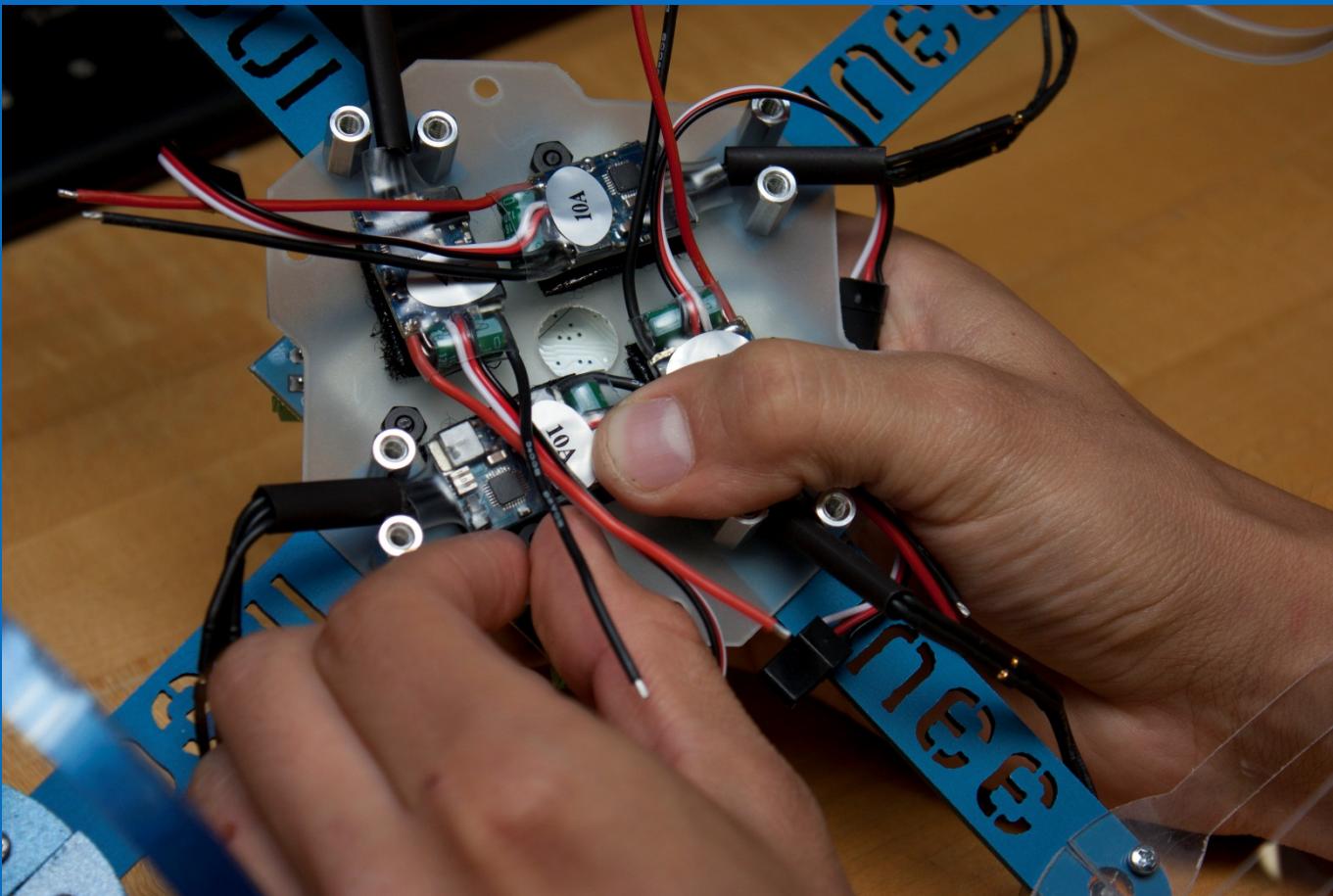
Four Short Spacers on Four Mounting Bolts, Bottom of Arduino Board with Shield



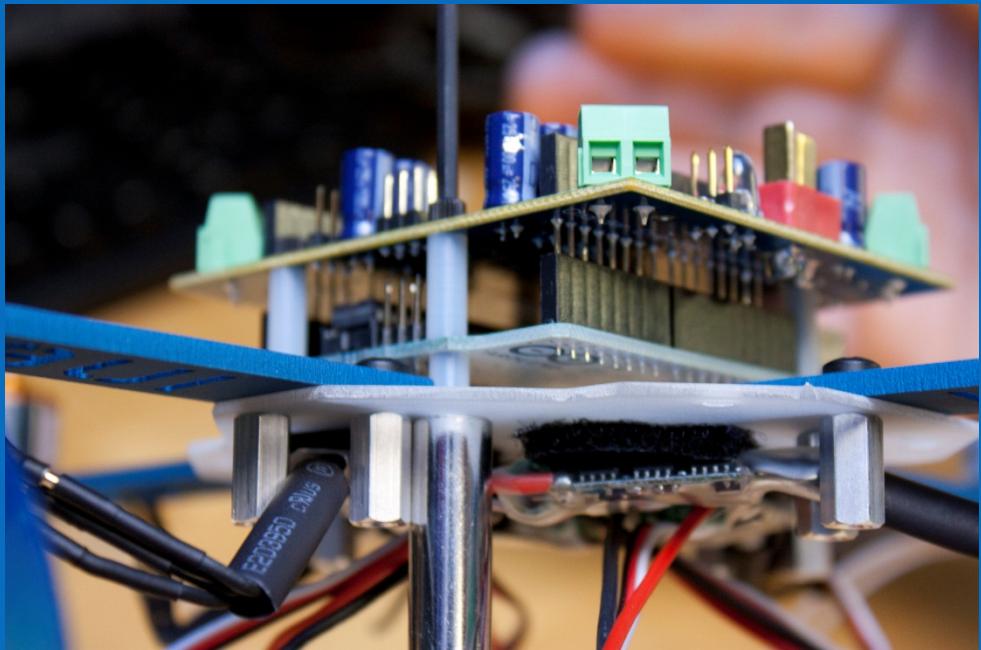
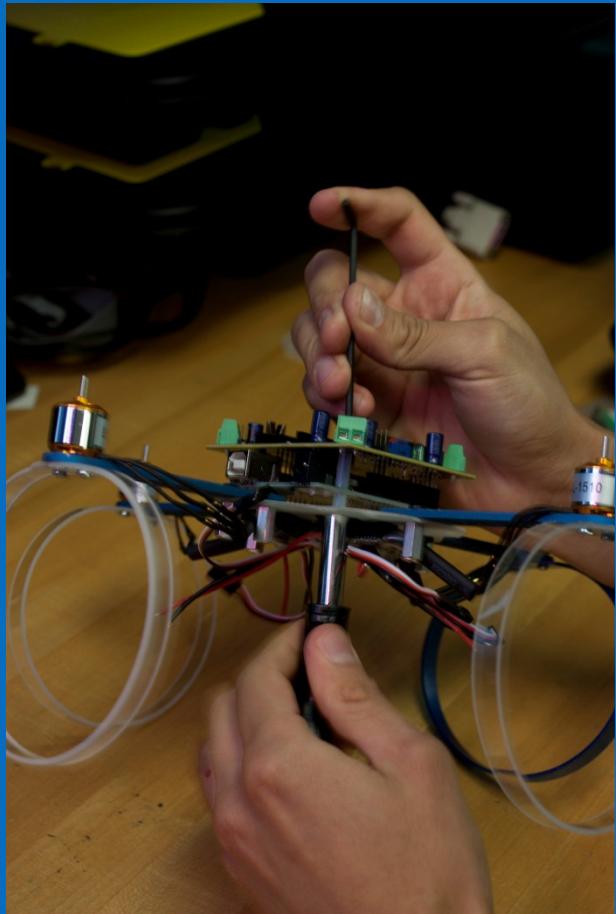
Slide Four Mounting Bolt Ends through Frame Base Holes



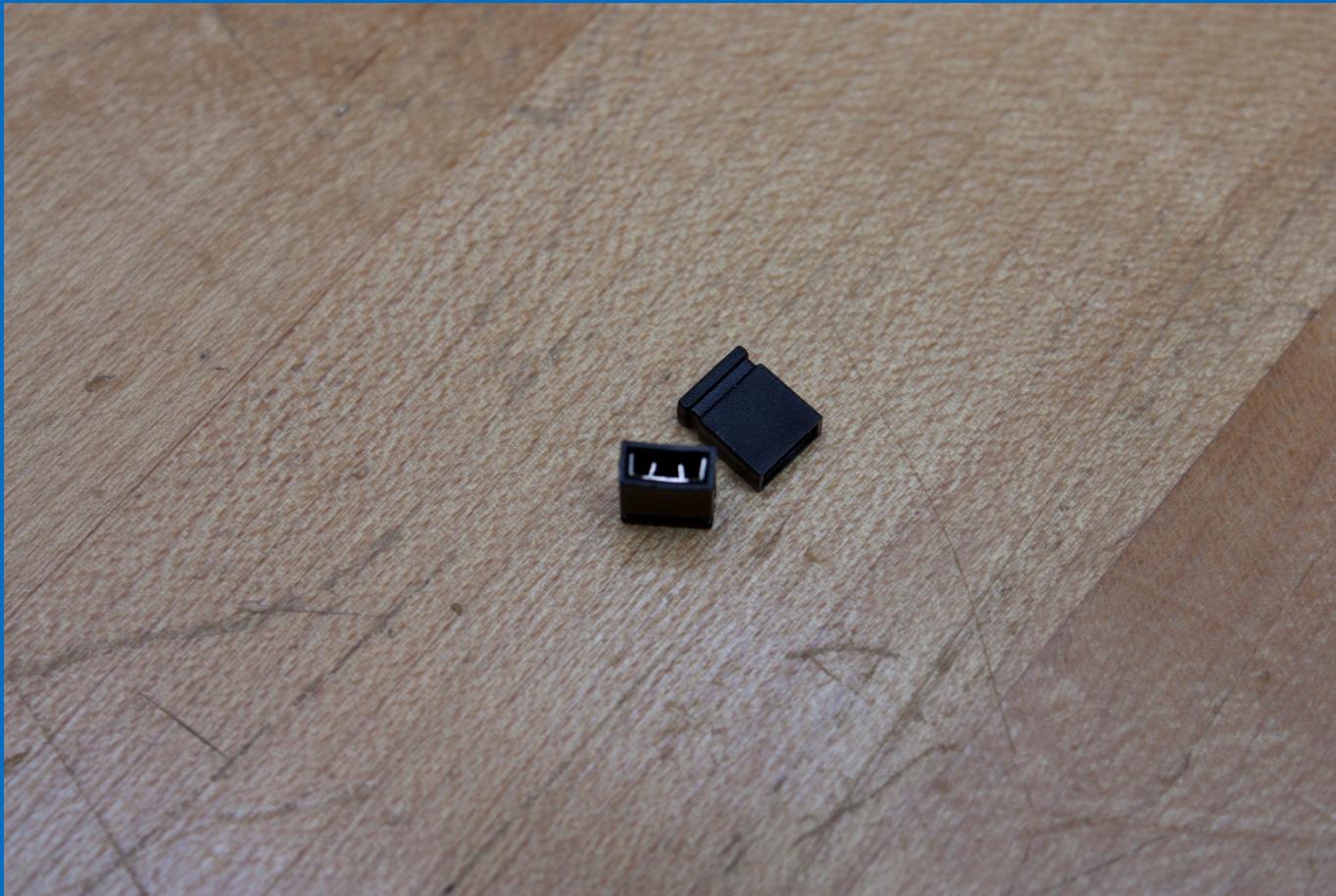
Attach Nuts to Four Mounting Bolts



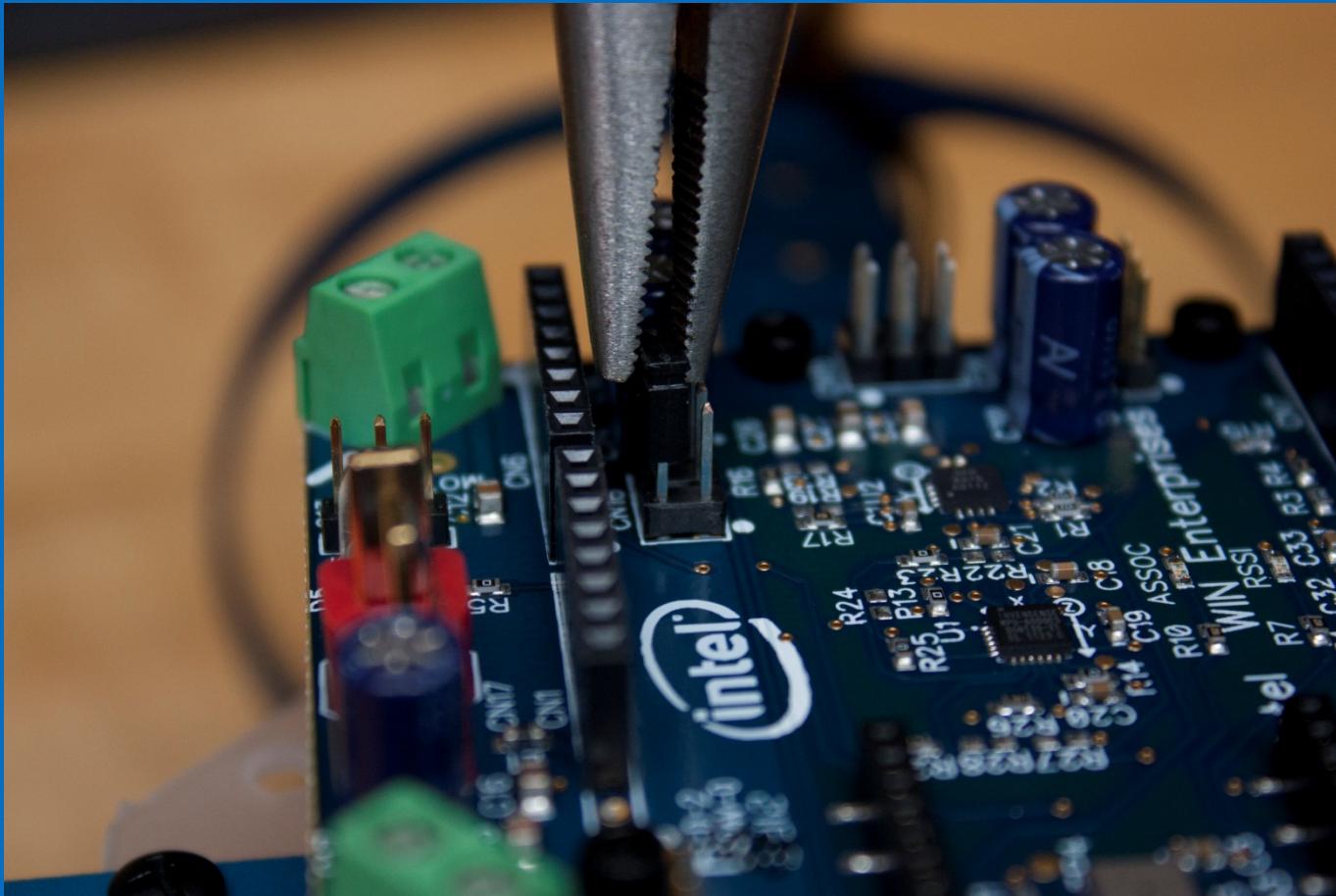
Tighten Mounting Bolts



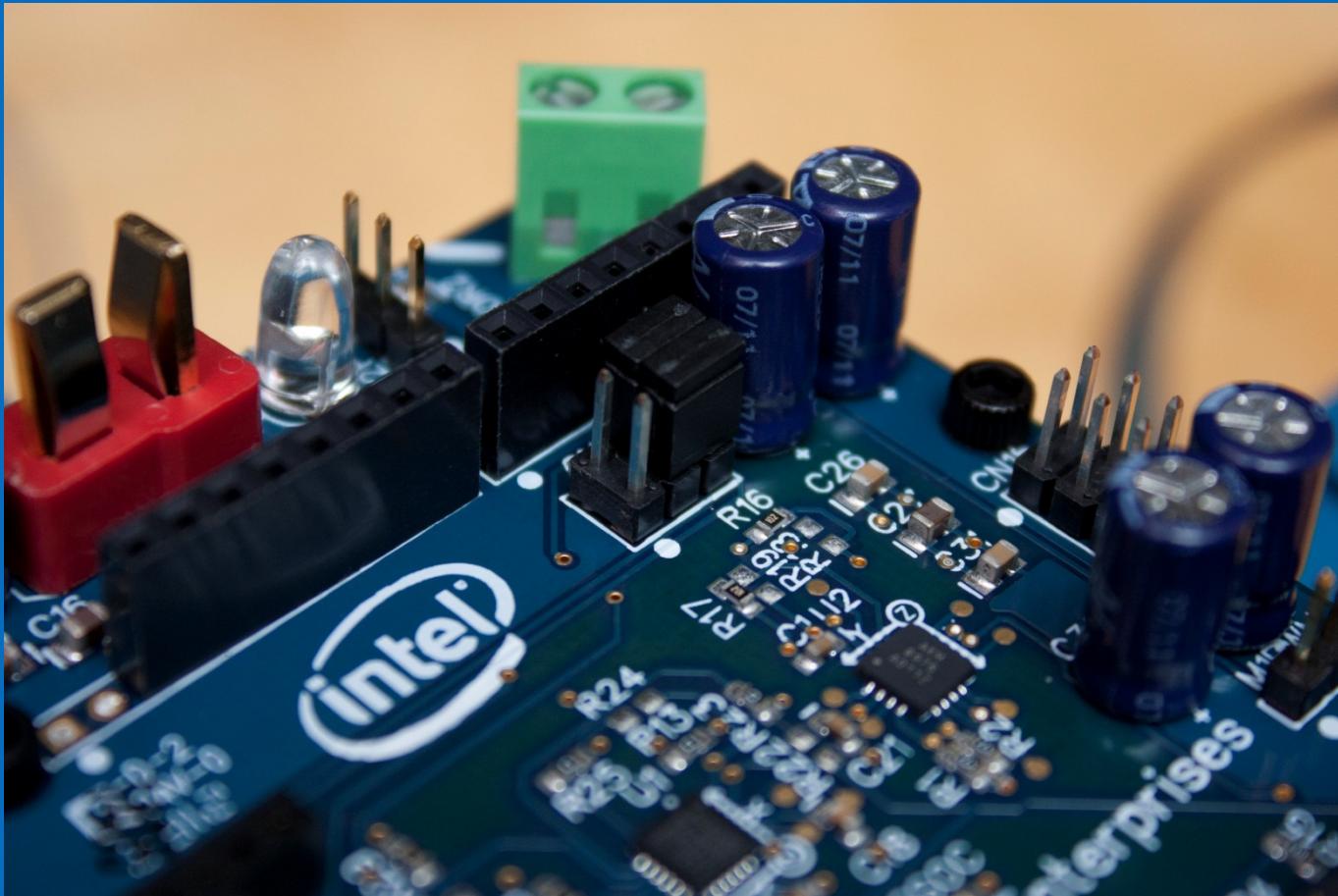
Locate Jumpers



Attach Jumpers to Header CN16



Jumper Setting for ZBee Utilization (move both away from capacitors for USB)

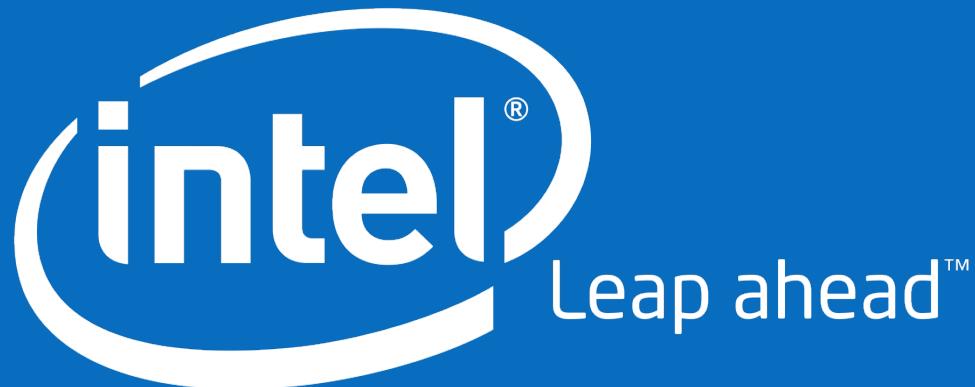


Start Charging Second Battery Pack



Questions?





Backup