# Open Tournament Controller Holder Assembly

This holder secures the OTC to the robot.

**NOTES:**

The Holder, when installed, takes up approximately 4.5" x 2.5".

All pieces are intended to be installed with the textured surface towards the Mounting Plate #6.

Bolt #2 will self-tap a hole in Holder Gate #5.

Bolt #2 will lock into the Mounting Plate #6 when fully tightened.

With bolt #2 loosened, Holder Gate #5 will swing in place to allow for OTC removal.

Nylon nuts are preferred.  Each should be slightly loose, yet secure.
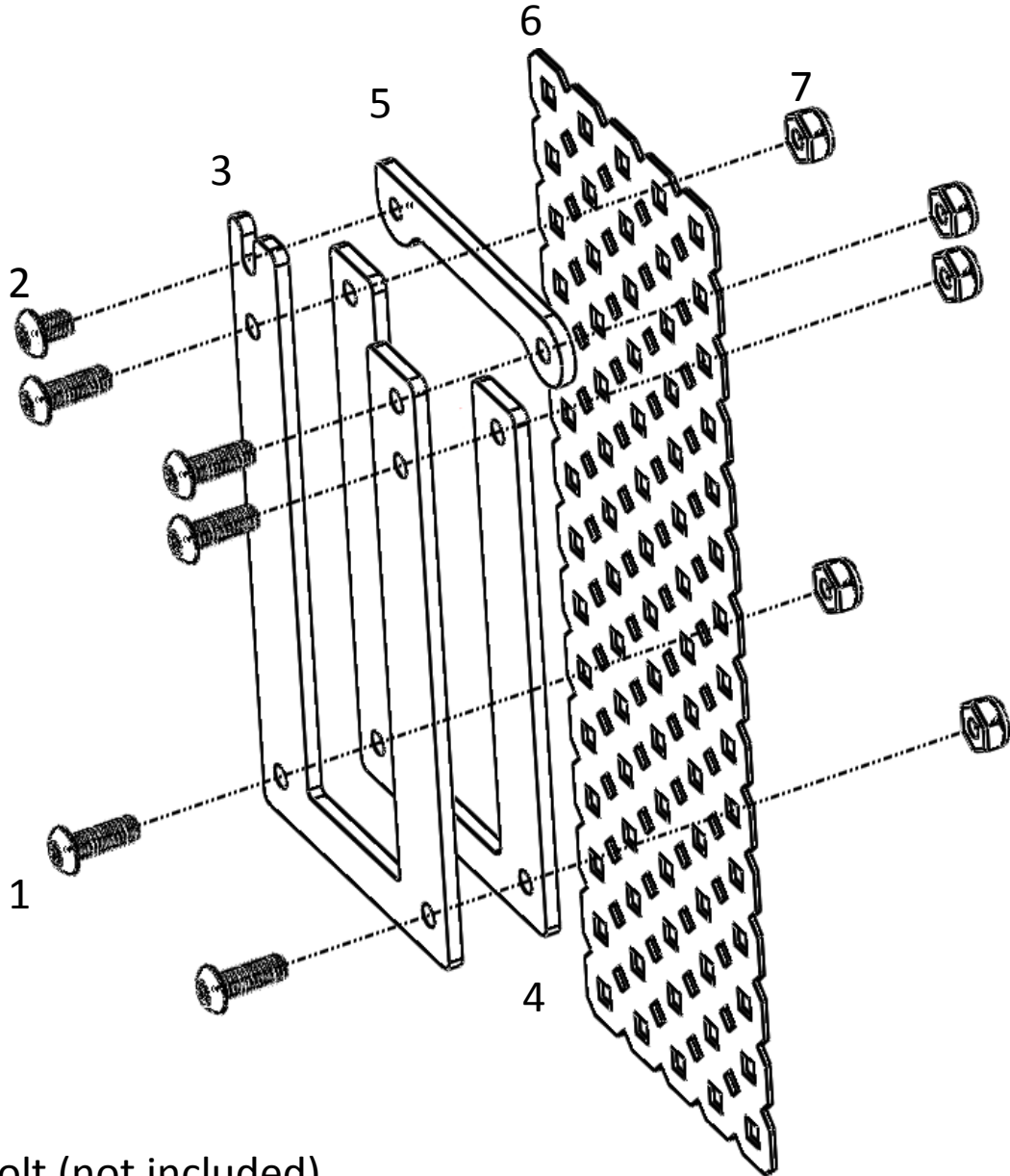


1 – 5x - 3/8" Bolt (not included)

2 – 1x - 1/4" Bolt (not included)

3 – 1x - Holder Top Plate

4 – 1x - Holder Mid Plate

5 – 1x - Holder Gate

6 – 1x - Mounting Plate (not included)

7 – 5x - Nylon nuts (not included)

# Open Tournament Controller Battery Unit

This unit has 3 pairs of battery cables running through it.  It switches the robot power on and off.

**NOTES:**

The attachment bolts are 1.5" x 1.5" on center.
The flag unit draws power from battery A (nearest the Ethernet connection).  The A battery slot should always be filled.
The entire unit is 2.25" long, 1.875" wide, and 1" tall.
Each battery lead is approximately 10cm long and is terminated in a Tamiya connector(the same as standard RC batteries.)

The Ethernet cable to link this with the flag is a standard cable.  Any reasonable length will work.
The cable may be replaced and is allowed to be different between robots for a tournament.
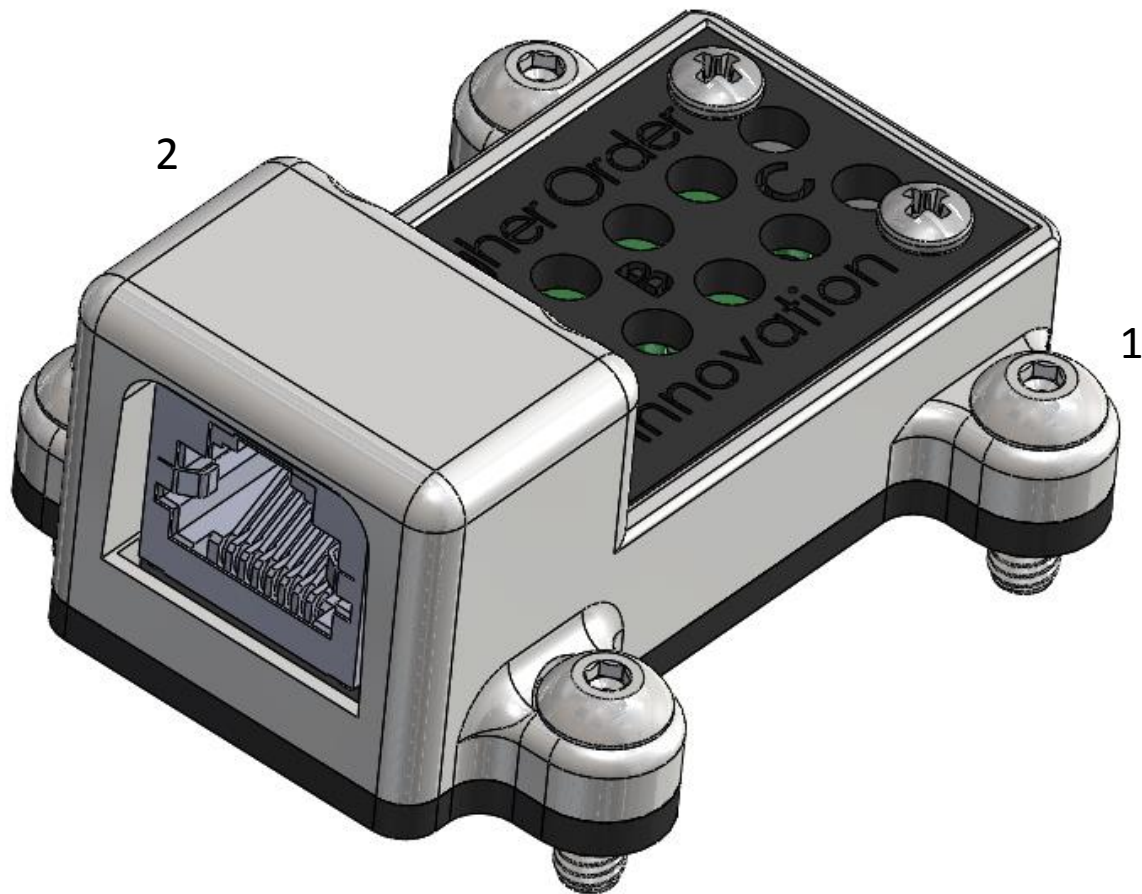


1 – 4x – 1/2" Bolt (not included)
2 – 1x – OTC Battery Unit

# Open Tournament Controller Flag Unit

This unit needs to sit near the top of the robot and should be clear of obstructions.  The orb on the end will provide feedback as to the current mode of the robot and the state of the power supply.
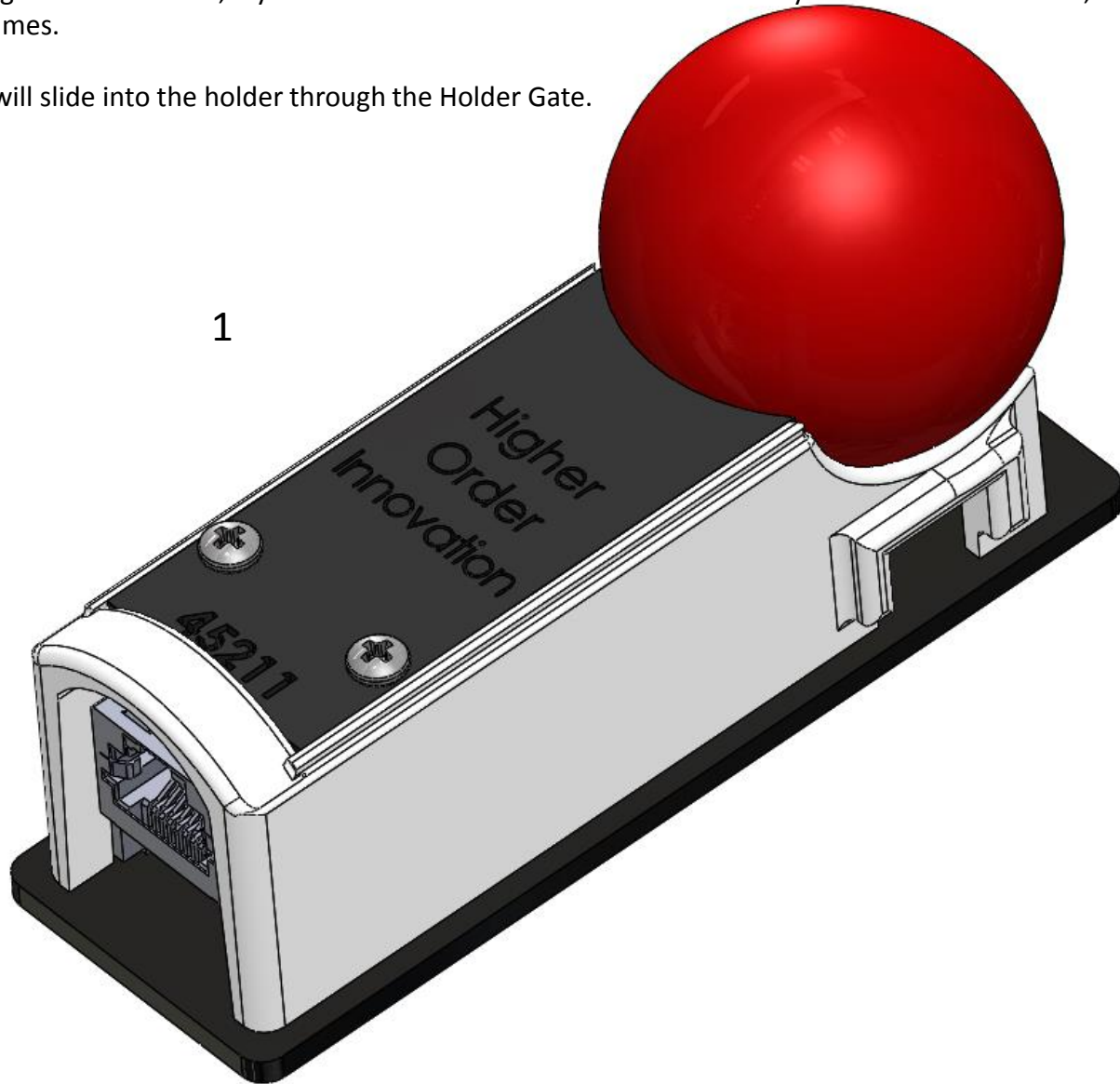
**NOTES:**
This unit will take the place of needing flags for the robot as it will glow red or blue based on your alliance.

A manual override for practice can be activated through the slide switch on the side.  If the ball is solid green, the robot has power.  If it is fading green, it is waiting and the robot does not have power.

Updates on the match progression and the schedule will be periodically sent to the units and will be shown as a flashing signal.  For instance, if your next match is 4 matches from now and you are on the red team, the orb will flash red four times.

This unit will slide into the holder through the Holder Gate.

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## 1 – 1x – OTC Flag Unit

# Open Tournament Controller Flag Unit Color Codes

The color and pattern of the orb on the Flag Unit provides feedback to the state of the robot.

**Off the Field Notes**

Fading Green – off the field with no power supplied to the robot.
Solid Green – off the field with power supplied to the robot (Practice Mode)
Blinking Alliance Color (red or blue) – blinks the number of matches until your next match (Schedule Update)
Alternating Alliance Color and Green – either 1 or 2 matches until your match. You should be near the field.

**Match Notes (regular or skills)**

Starting any match begins with three quick blinks in the match color before beginning the match.
During the match, solid color is driver mode and fast blinking is autonomous.
The last ten seconds of the match is shown with a fading orb.
A normal match is colored with the alliance color.
A programming skills run is yellow.
A driver skills run is cyan.

After the match, the orb will slowly blinking in the match color for 'Ref Mode'