



C-MUK

COUGAR-MIDLIFE UPGRADE KIT

THANK YOU FOR PURCHASING THE VIPERGEAR C_MUK (COUGAR MIDLIFE UPGRADE KIT). THE C-MUK REPLACES THE OLD POTMETERS INSIDE THE THRUSTMASTER COUGAR HOTAS FLIGHT STICK , PROVIDING GREATER ACCURACY AND LONGER LIFESPAN OF THE TM COUGAR.

THIS IS JUST A QUICK AND DIRTY WRITE UP HOW TO INSTALL THE SENSORS, IN THIS DOCUMENT WE PRESUME YOU KNOW HOW TO WORK YOUR WAY AROUND REGARDING THE COUGAR.

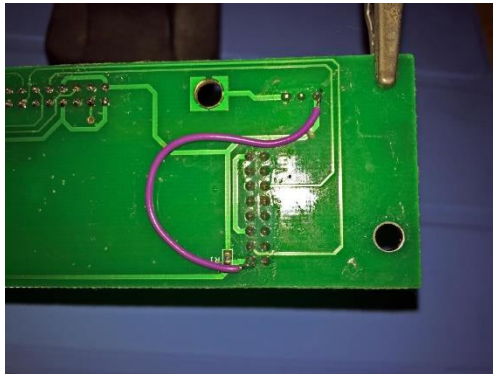
WARNING

WHEN PLACING THE SENSOR FOR STICK OR TQS UNPLUG THE HOTAS FROM YOU'RE COMPUTER, SERIOUSLY UNPLUG IT.

NEVER CONNECT A TQS SENSOR IN THE STICK OR A STICK SENSOR IN THE TQS. IF SOMEHOW THIS IS THE CASE YOU WON'T DAMAGE THE COUGAR ELECTRONICS BUT THE SENSOR GETS FRIED.

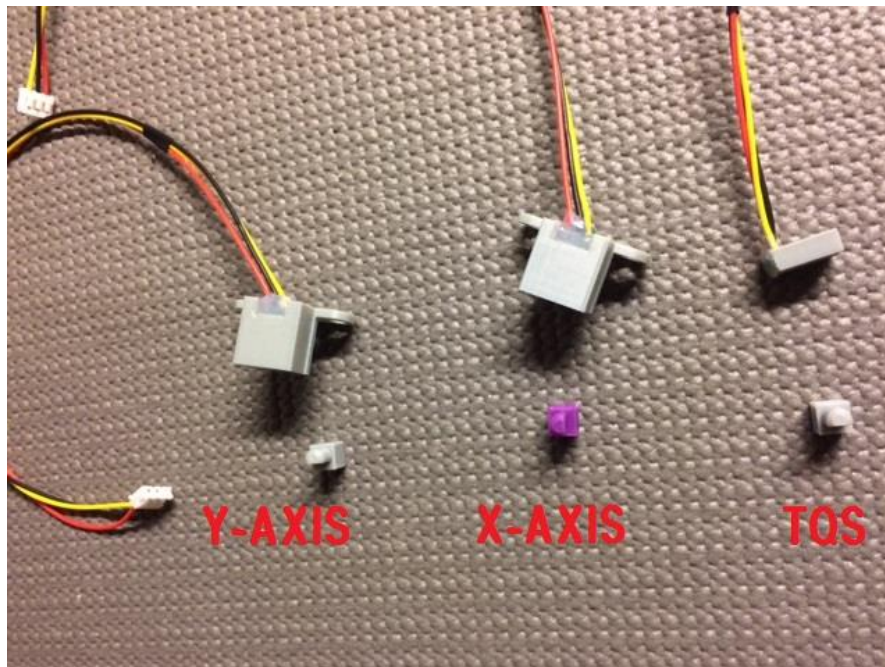
REMARKS

1. IN A SERIES TQS THE D-SLOT IN THE PHYSICAL THROTTLE AXIS IS A FRACTION TOO WIDE. THE MAGNET HOLDERS ARE DESIGNED BY THE DEFAULT MEASUREMENTS OF THE POT. SO IF YOU'RE COUGAR HAS A BIGGER D-SLOT JUST APPLY (MOSTLY ONE TURN) OF SCOTCH TAPE. THIS WAY IT WILL FIT TIGHT IN THE D-SLOT.
2. THIS IS NOT REALLY A BUG. IN THE LOWER PRODUCTION SERIES ON THE TQS PCB THERE IS AN ADDITIONAL RESISTOR IN THE POWER SUPPLY TRACE TO THE POT CONNECTOR. ONCE THE THROTTLE SENSOR IS PLACED IT WON'T WORK. THIS CAN BE RESOLVED BY SHORTING R1 ON THE PCB.



PACKAGE CONTENT

DEPENDING ON WHAT YOU'VE ORDERED THESE ARE THE SENSORS PROVIDED.



C-MUK TQS INSTALLATION

DISCONNECT THE DB CONNECTOR FROM THE COUGAR STICK BASE, UNSCREW THE EIGHT BOLTS ON THE BOTTOM. THERE ARE FOUR LONGER SCREWS THAT GO IN THE MIDDLE AND FOUR SHORTER THAT GO ON EACH CORNER. AFTER ALL DE SCREWS ARE UNSCREWED GET THE COVER REMOVED.

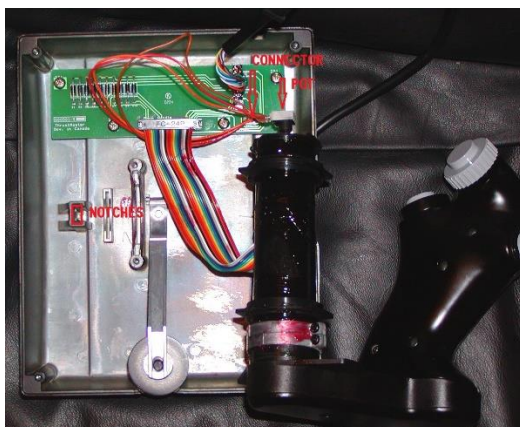
DO NOT DISCONNECT THE FLAT CABLE CONNECTOR, IF IT FOR SOME REASON IT GETS DISCONNECTED AND PLACED BACK WRONG THE THROTTLE GOES CRAZY WHEN BUTTONS ON THE THROTTLE HANDLE ARE PUSHED.

NOW YOU HAVE ACCESS TO THE POT, DISCONNECT THE CABLE FROM THE PCB. PULL THE SENSOR AND THE THICK BLACK PHYSICAL AXIS OUT OF IT SOCKETS.

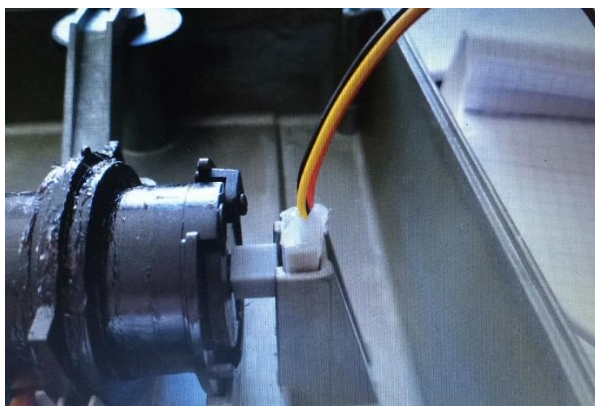
REMOVE THE POT(DO NOT THROW IT AWAY KEEP IT SOMEWHERE SAFE).

PLACE THE MAGNET IN THE D-SLOT. YOU MIGHT NEED TO WIGGLE IT IN PLACE A BIT CAUSE IT IS A TIGHT FIT (DON'T FORCE IT WITH BRUTAL STRENGTH). PUSH IT ALL THE WAY TILL THE SQUARE SURFACE TOUCHES THE PHYSICAL AXIS.

PLACE THE SENSOR IN THE ALUMINIUM PLACE HOLDER PUSH IT ALL THE WAY DOWN, AT SOME POINT YOU CAN'T PUSH IT FURTHER CAUSE OF THE TWO NOTCHES IN THE ALUMINIUM PLACE HOLDER .



CONNECT THE CONNECTOR TO ITS RECEPTACLE ON THE PCB AND SCREW THE LID DOWN IN PLACE. JOB DONE.



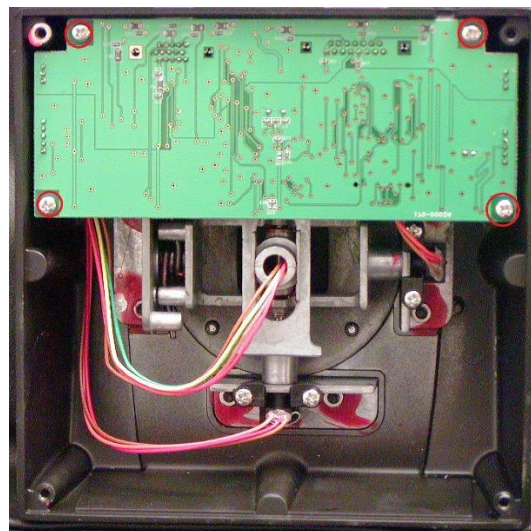
FINISHED INSTALLATION

C-MUK STICK INSTALLATION

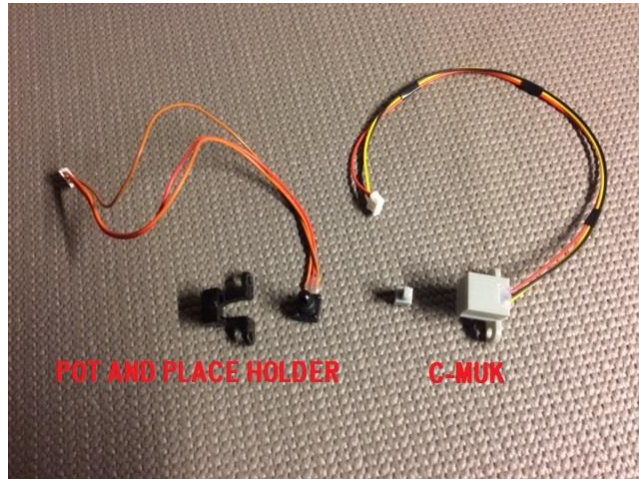
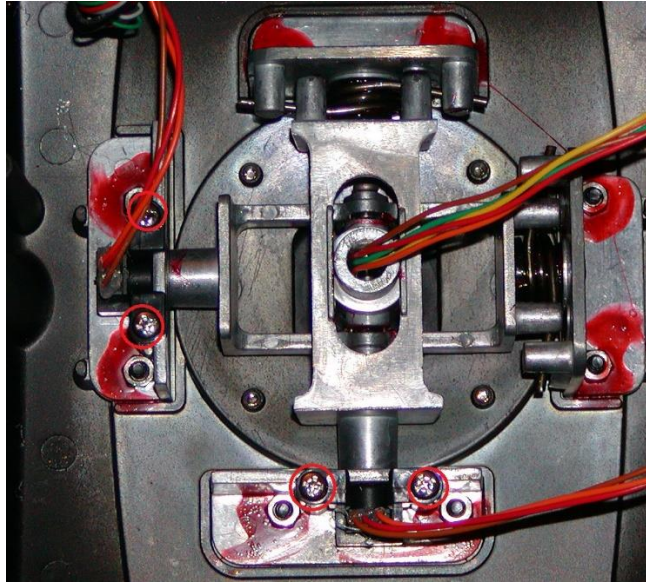
UNSCREW THE FOUR BOLTS RECEPTACLES WHERE THE DB-CONNECTORS ARE SCREWED IN.



TURN THE STICK UPSIDE DOWN AND UNSCREW THE FOUR BOLTS ON THE BOTTOM AND REMOVE THE BOTTOM COVER. NOW YOU HAVE ACCESS TO THE INTERNALS UNSCREW THE FOUR BOLTS FROM THE PCB, ON ONE CORNER THERE IS A GROUND WIRE ATTACHED PLACE IT BACK WHEN YOU PUTTING IT TOGETHER AGAIN.

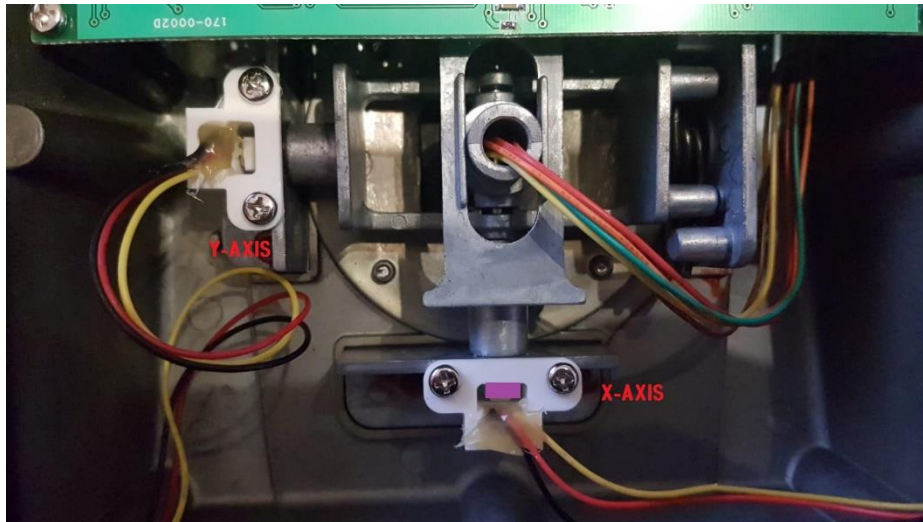


FLIP THE PCB AND DISCONNECT THE TWO POT CONNECTORS. UNSCREW THE POTS AND REMOVE THE POT AND IT'S PLACEHOLDER COMPLETELY (AGAIN DON'T THROW THEM AWAY, KEEP THEM SAFE SOMEWHERE).



IN THE STICK PACKAGE THERE ARE TWO SENSOR SETS ON MAGNET COLOUR DIFFERS FROM THE SET. PLACE THIS MAGNET IN THE X-AXIS SLOT. THIS IS IMPORTANT CAUSE THE MAGNETIC NEEDS DIFFERENT. IT HAS BEEN DESIGNED THIS WAY SO YOU DO NEED TO INVERTS AXIS IN THE COUGAR CONTROL PANEL. IF YOU MISTAKING THIS STEP YOU NEED TO INVERT THE X-AXIS IN THE COUGAR CONTROL PANEL. PLACE THE SENSORS IN POSITION AND SCREW THEM DOWN. CONNECT THE WIRES TO THE RECEPTACLES ON THE PCB AND SCREW THE PCB AND THE GROUND WIRE BACK IN PLACE. PUT THE COVER BACK AND SCREW IT DOWN. ALL LEFT TO DO IS TO PUT BACK THE DB-CONNECTOR RECEPTACLE SCREWS.

JOB DONE.



FINISHED INSTALLATION

CALIBRATING

DO NOT OPEN THE VIEWER WHILE CALIBRATING THE COUGAR(WE ENCOUNTERED MISS CALIBRATING IN THE CALIBRATION PROCESS WHILE THE VIEWER WAS OPENED).

CONNECT THE TQS BACK ON THE STICK AND PLUG IN THE USB CABLE.

OPEN UP THE COUGAR CONTROL PANEL AND GO TO THE START-UP & CALIBRATION TAB.

IN THE CALIBRATION OPTION THICK MANUAL CALIBRATION AND CLICK ON THE MANUAL CALIBRATION BUTTON. FOLLOW THE CALIBRATION STEPS. SAVE THE CALIBRATION.

OPEN UP THE VIEWER AND CHECK IF EVERYTHING IS WORKING AS IT SHOULD.

CONGRATS JOB DONE YOU UPGRADED THE COUGAR WITH HALL-EFFECT SENSORS.