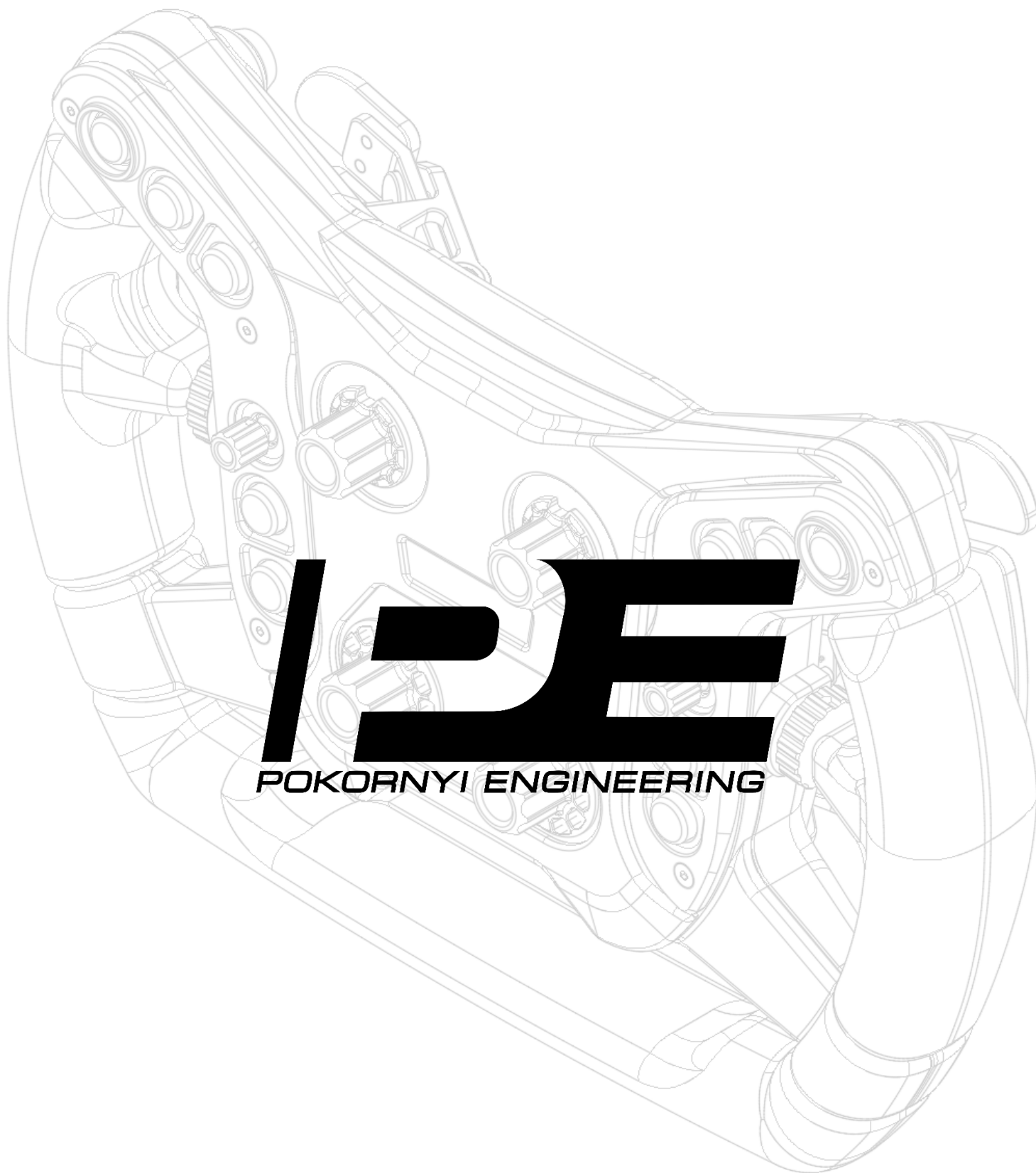




PGT

BOM – Component list

How to use

This Bill of Materials (BOM) is designed to guide you through sourcing the parts needed to build your DIY steering wheel project. It provides a structured overview of every component, from essential electronics to optional customization items, helping ensure nothing is overlooked during the build process.

BOM Structure

Category	Main item	Notes	Link for pre-made part
ELECTRONICS	Coiled USB cable with circular connector	1	With GX12 or Weipu SA12 →
	Cable side circular connector	1	
	↔ GX12 plug	GX12 4-pin plug	→
	↔ Weipu SA12 plug	Weipu SA1210/SSIB	→
	Coiled USB cable	1	Without connector
	↔ PE Coiled cable		→
	↔ Leo Bodnar coiled cable		→

Main Items (black lines): These are the key components of the build. Most are offered in our webshop as pre-made parts (e.g., a USB cable with connectors already soldered). Choosing these items saves time and ensures compatibility.

DIY Alternatives (gray background): If you prefer to make a main item yourself, the required sub-components are listed directly underneath it with a gray background. Collecting all of these will allow you to build the equivalent of the pre-made item.

Alternatives: Some parts include one or more alternative options listed underneath. These may be:

- Compatible substitutes (parts with the same function but from a different brand/model).
- Alternative sources (different suppliers offering the same or equivalent part).

Using the BOM

1. Review the full list before ordering to understand which parts are essential and which are optional.
2. Check availability at local or online suppliers; in some cases, equivalent alternatives may be substituted.
3. Plan your build by ensuring all parts are gathered before starting assembly, which helps prevent delays.
4. Follow the assembly guide in parallel with this document to ensure each part is used correctly.

Important Notes

- Specifications (such as dimensions, ratings, and compatibility) should be double-checked before purchase.
- Costs and availability may vary; sourcing from multiple suppliers may be necessary.
- Safety comes first: handle electronic components with care and use proper tools during assembly.
- This BOM is intended as a practical tool to streamline your build journey—helping you go from parts list to a fully functioning device with confidence.

ELECTRONICS	PGT Main PCB		1	Ready-made electronics board	→
	PGT LED PCB		1	Ready-made LED board	→
	Coiled USB cable with circular connector		1	With GX12 or Weipu SA12	→
	DIY	Cable side circular connector	1		
		 GX12 plug		GX12 4-pin plug	→
		 Weipu SA12 plug		Weipu SA1210/S51B	→
		Coiled USB cable	1	Without connector	
		 PE Coiled cable			→
		 Leo Bodnar coiled cable			→
	Internal USB wire		1	Weipu variant	→
				GX12 variant	→
	DIY	Wheel side circular connector	1		
		 GX12 socket		GX12 4-pin socket	→
		 Weipu SA12 socket		Weipu SA1212/P5B	→
		4-pin JST XH cable assembly	1	30cm wires with connector	→
	M12 button assembly		2	Button with JST XH conenctor	→
	DIY	M12 button	2	Domed push button switch	→
		2-pin JST XH cable assembly	2	30cm wires with 2-pin connector	→

HARDWARE	PGT Screw pack		1	Complete fastener pack	→
	DIY	M3x5(6)mm brass heat insert	10		
		 M3xD4.2xL5mm heat insert		PE Shop	→
		 M3xD4.2xL5mm heat insert		Aliexpress	→
		M4xD6.0xL8.0mm heat insert	6	For the 3D printed grips and front shell	→
		M2x10 socket head cap screw	4	For the rotary holders	→
		M3x8mm countersunk screw	8	For the 3D printed rear shell	→
		M3x10mm countersunk screw	2	For securing the PCB	→
		M3x20mm countersunk screw	10	Forthe LED PCB and button plates	→
		M4x12mm countersunk screw	12	For securing the main plate	→
		M4x10 socket head cap screw	4	For mounting the bottom grips	→
		M4x20 socket head cap screw	4	For mounting the grips	→
		M4x25 socket head cap screw	2	For securing the rear shell	→
		M5x12mm countersunk screw	6	For the main plate	→
		M4x15mm standoff (male-female)	12	For shifters/clutches	→
		M5x15mm standoff	6	For the front plate	→
		M3x5mm set screw	6	For the rotary knobs	→
		M2.5x3mm set screw	2	For the funky knob	→

Shifter		2		
	CUP Shifter		Ready-made alu shifter	→

SHIFTER	GT Shifter		Ready-made alu shifter	
	DIY	Shifter body	4	3D printed part MJF/PLA/PETG/ABS →
		Shifter lever	4	3D printed part MJF/PLA/PETG/ABS →
		Bearing	8	F693ZZ 3x8x4mm →
		M2x10mm button head screw	8	For mounting the switches →
		M3x8mm button head screw	8	→
		M3 washer	8	→
		M4x8mm button head screw	8	→
		M4xD6.0xL6.0mm heat insert	8	→
		M4xD6.0xL8.0mm heat insert	8	→
		M3x5(6)mm brass heat insert	8	→
		Microswitch	4	Omron D2F-L →
		2-pin JST XH cable assembly	4	30cm wires with connector →
		Magnet 12x5mm	8	
		↔ 12x5mm N52 magnet	Shop	→
		↔ 12x5mm N35 magnet	Aliexpress	→

CLUTCH	PE Clutch		1	Ready-made alu clutch set	→
	DIY	Clutch body	2	3D printed part MJF/PLA/PETG/ABS	→
		Clutch lever	2	3D printed part MJF/PLA/PETG/ABS	→
		Bearing	4	F693ZZ 3x8x4mm	→
		M3x8mm button head screw	4		→
		M3 washer	4		→
		M4x8mm button head screw	4		→
		M4xD6.0xL6.0mm heat insert	4		→
		M4xD6.0xL8.0mm heat insert	4		→
		M3x5(6)mm brass heat insert	4		→
		Hall-sensor	2	DRV5053RAQLPGMQ1	→
		3-pin JST XH cable assembly	2	30cm wires with connector	→
		Spring WD0.8mmxOD10mmxL30mm	2		→
		Magnet 8x4mm	2		
		↔ 8x4mm N35 magnet	PE Shop		→
		↔ 8x4mm N35 magnet	Aliexpress		→

	Main plate with grips		1	Ready-made with molded grips	→
	DIY	Main plate	1	6.0mm 3K matte twill weave carbon	→
		Grip Front L 3DP	1	3D printed part SLA/PLA/PETG/ABS	→
		Grip Front R 3DP	1	3D printed part SLA/PLA/PETG/ABS	→
		Grip Rear L 3DP	1	3D printed part SLA/PLA/PETG/ABS	→
		Grip Rear R 3DP	1	3D printed part SLA/PLA/PETG/ABS	→
	Rear Shell		1	Carbon fiber shell	→
	DIY	PGT Backplate	1	4.0mm 3K matte twill weave carbon	→
		Rear shell 3DP	1	3D printed part MJF/PLA/PETG/ABS	→
	Front Shell		1	Carbon fiber shell	→
	DIY	Front shell 3DP	1	3D printed part MJF/PLA/PETG/ABS	→
	Bottom grip		1	Molded silicone bottom grip	→

BODY	Grip end cups		1	When button grip is not used	→
	Carbon paddles		1	Carbon paddle pack	→
	Button plate set		1	Alu button plates	→
	DIY	Button plate L 3DP	1	3D printed part SLA/PLA/PETG/ABS/MJF	→
		Button plate R 3DP	1	3D printed part SLA/PLA/PETG/ABS/MJF	→
	Encoder holder set		1	Alu encoder holder set	→
	DIY	Encoder holder top 3DP	2	3D printed part SLA/PLA/PETG/ABS/MJF	→
		Encoder holder bottom 3DP	2	3D printed part SLA/PLA/PETG/ABS/MJF	→
	Funky knob		4	Alu FK1 Funky Knob	→
	DIY	Funky knob 3DP	4	3D printed part MJF/PLA/PETG/ABS	→
	Front knob		4		
		PG-X Rotary knob			→
		PG-S Rotary knob			→
		PV-X Rotary knob			→
		PV-S Rotary knob			→
		GT11 Rotary knob			→
		GT11S Rotary knob			→
	DIY	Front knob 3DP	4	3D printed part MJF/PLA/PETG/ABS	→
	Side knob		4	Alu GS11 Rotary Knob	→
	DIY	Side knob 3DP	4	3D printed part MJF/PLA/PETG/ABS	→
	Internal spacer and light guide set		1	3D printed PLA	→
	DIY	Rotary light guide 3DP	1	3D printed part MJF/PLA/PETG/ABS	→
		LED Spacer 3DP	1	3D printed part MJF/PLA/PETG/ABS	→
		Button Plate L Spacer 3DP	1	3D printed part MJF/PLA/PETG/ABS	→
		Button Plate R Spacer 3DP	1	3D printed part MJF/PLA/PETG/ABS	→
MISC	PGT Sticker pack		1	Polycarbonate sticker pack	→
	DIY	Rotary Decal	1	Based on DECAL fabrication files	
		Rotary Labels	1	Based on DECAL fabrication files	
		Button Decals	1	Based on DECAL fabrication files	

It is recommended to buy more of small parts (+10-20%).

