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Historic E-Guitar Meets AME

Idea Pickguard AMEfication

01 Custom-made 1950's Hopf Guitar

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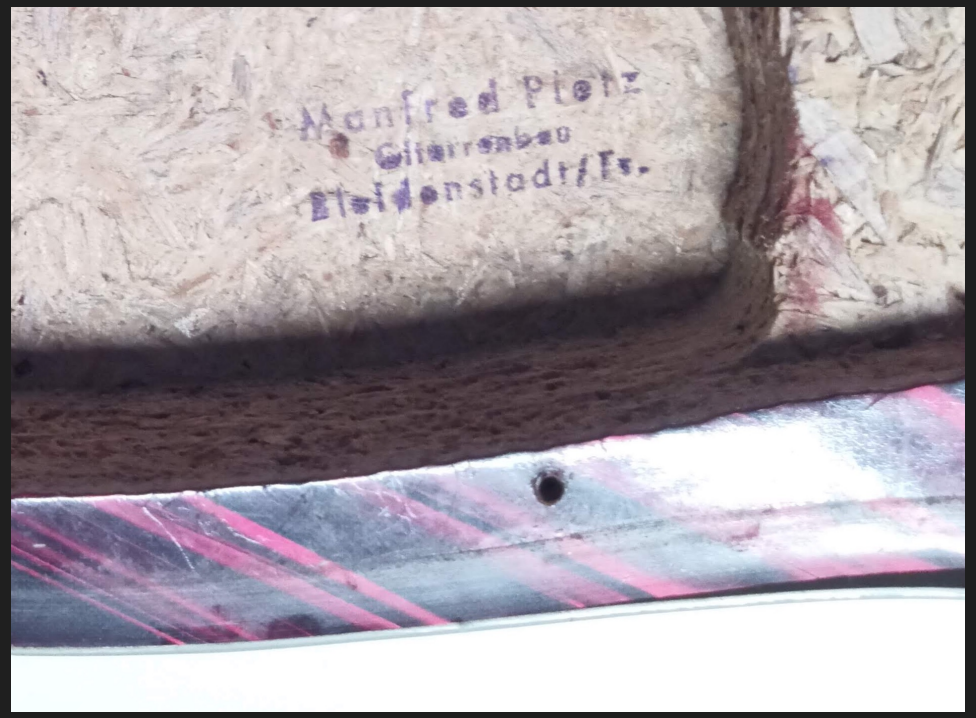
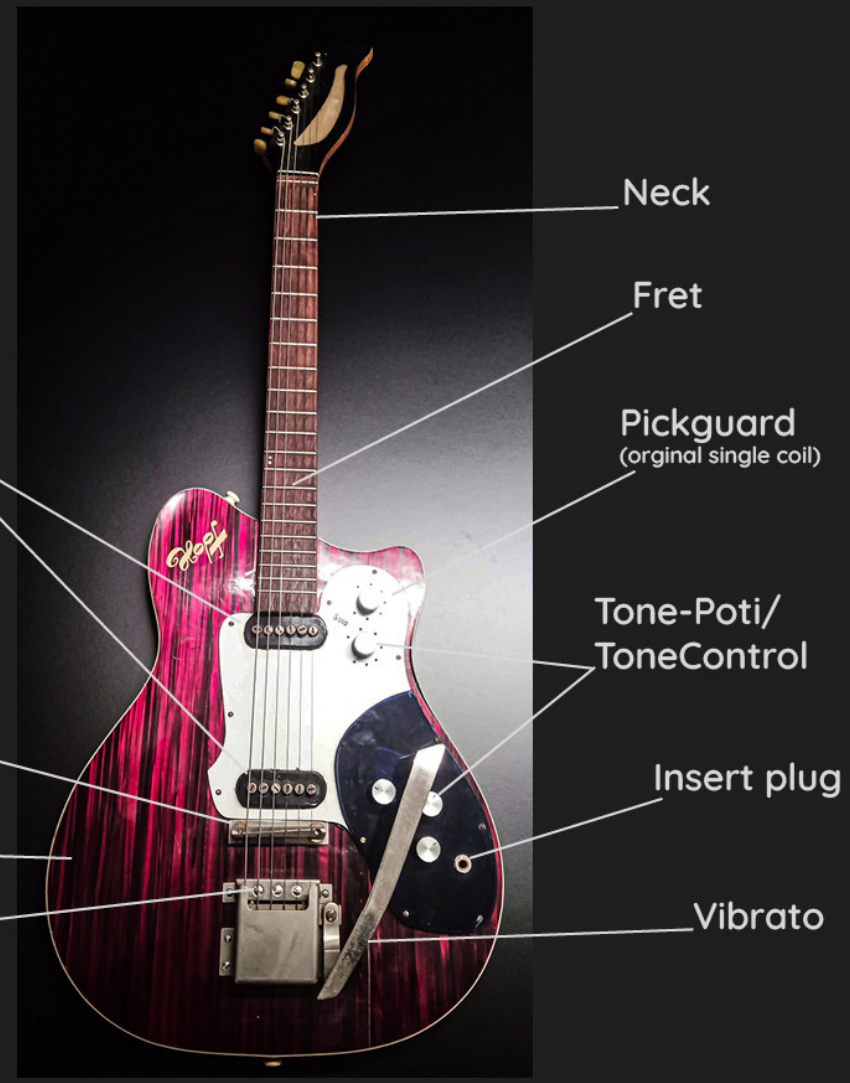


- By Manfred Pletz Gitarrenbau



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Decoding an AME Project : Tips & Insights

- Install a new pickguard using an individual motherboard on the backside.
- Preserve the positions of the original inserts as closely as possible.
- Wire the motherboard for humbuckers to enhance signal performance.
- Utilize 3D-printed coaxial connections for superior shielding, minimizing the need for traditional cabling.
- Design the motherboard form factor for easy implementation.
- Goal: Eliminate wire cabling and simply solder the various potentiometer pads to the motherboard.

02 The Pickguard

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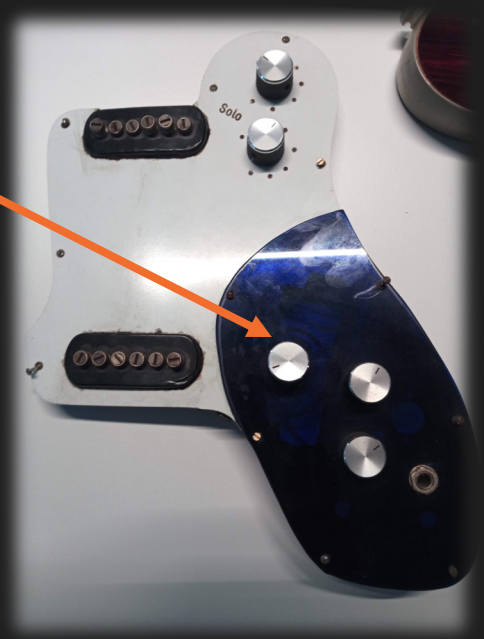
Original custom style but different from the basic original

Former position of radio buttons



03 Volume & Tone Control Circuit

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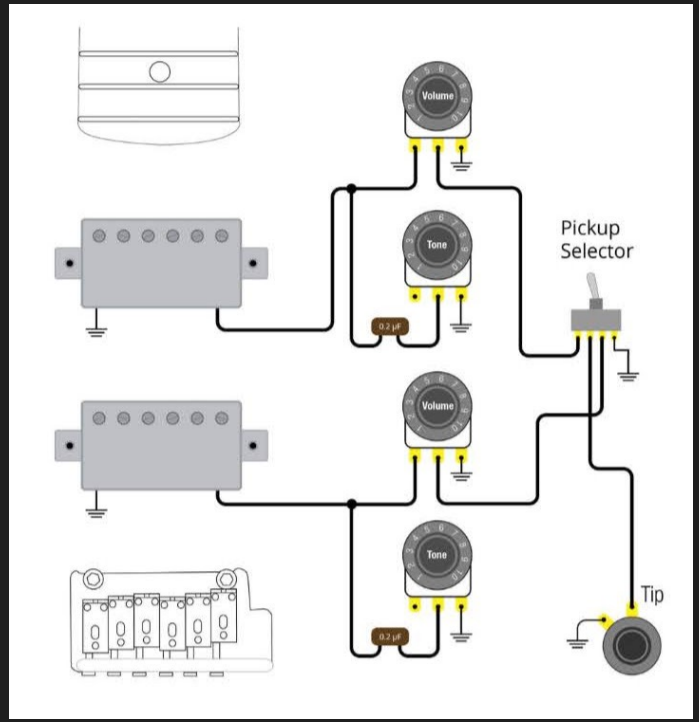
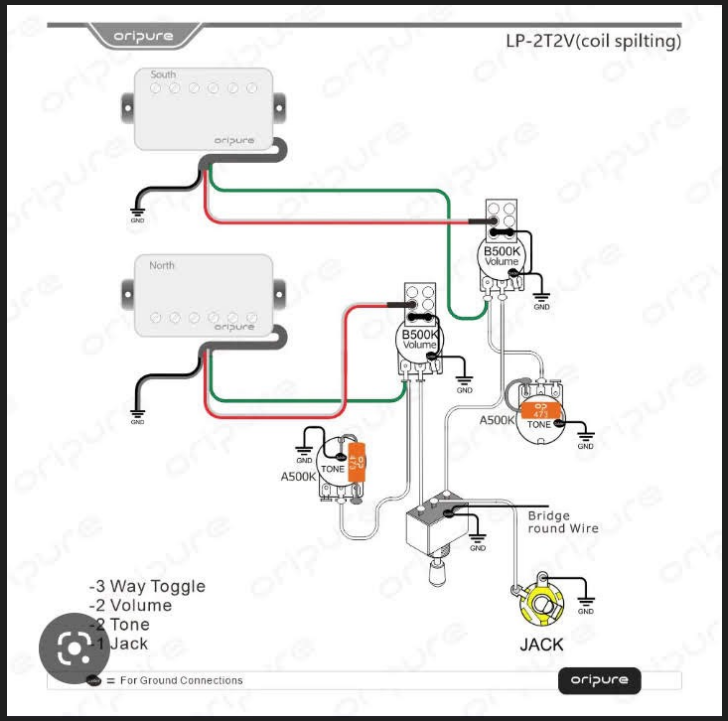
How to implement the Radio Buttons best instead of the pickup selector to perform SOLO I, II, Rhythm and Off?

Les Paul/Gibson Style



Suitable

With Coil Splitting



Not suitable for this design

04 AMEfication

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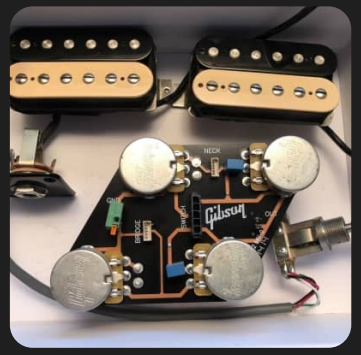
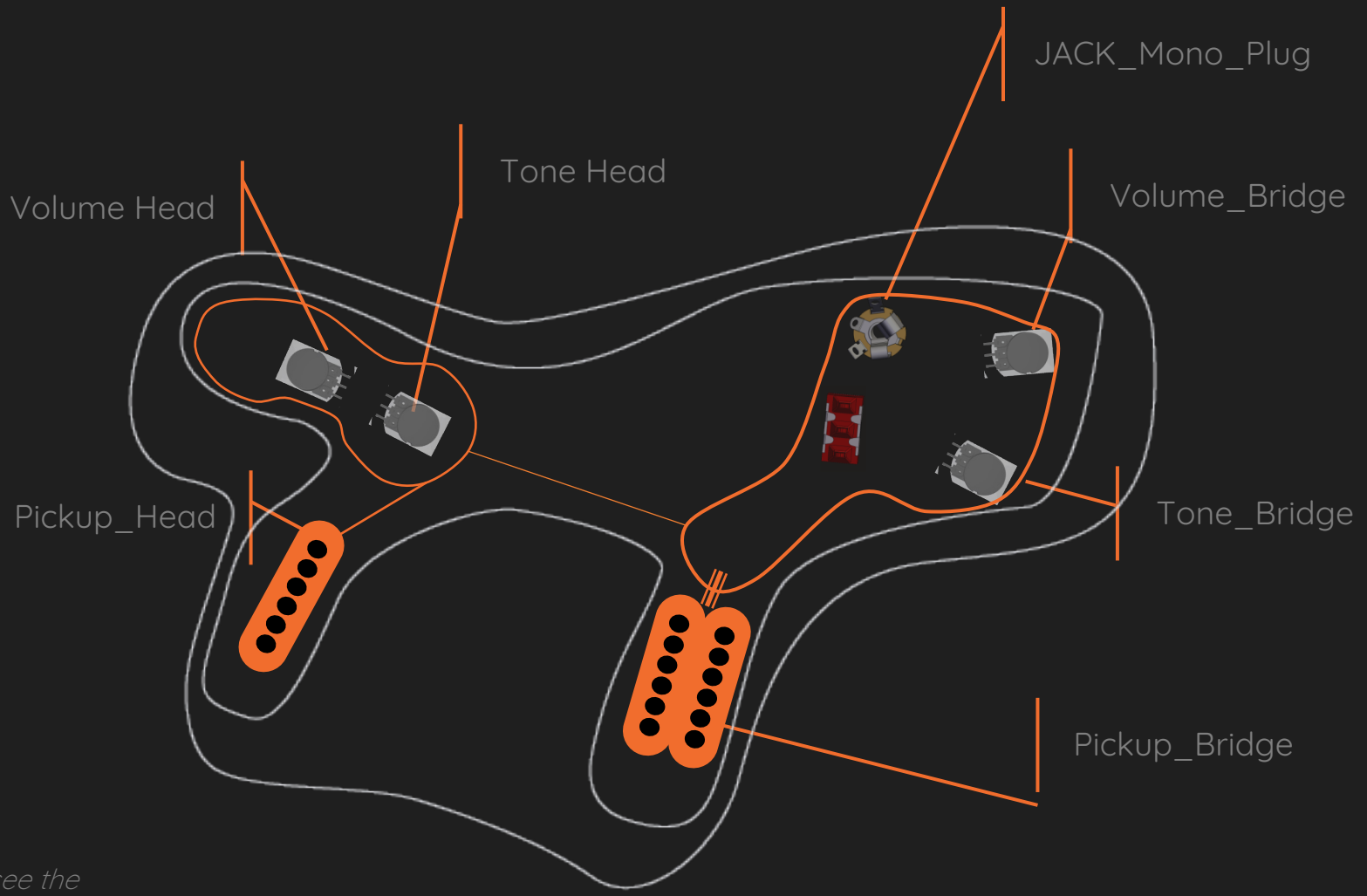
- Creating a PCB-like component motherboard with greater potential for individualization.
- Ensuring easy implementation through a plug-in system.
- Enhancing signal shielding by implementing AME coaxial lines.
- Exploring direct printing of capacitors for precise audio filter tuning.
- However, a challenge remains as the components are large in size.



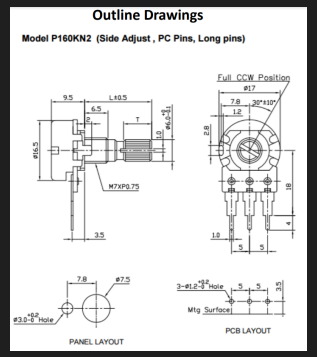
For more Inspiration see the Gibson quick connect concept



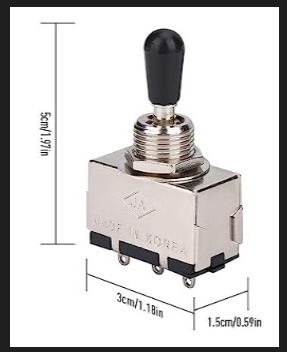
Before AMEfication let us learn traditionally

COTs components for procurement

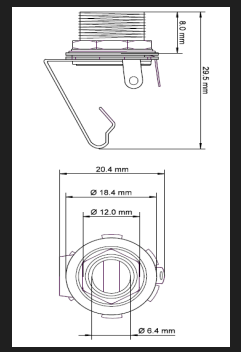
Potentiometer 



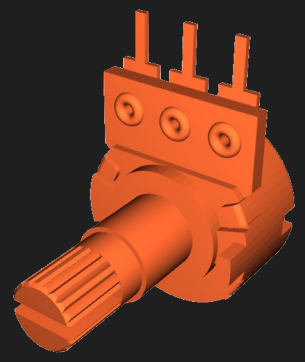
3way toggle switch 

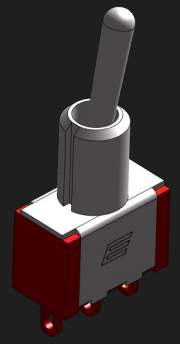


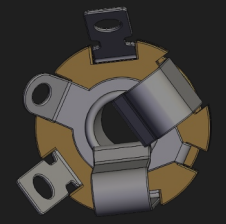
Jack panel socket
6.35 mm - mono 



3D-Design‘s for the components







05 Keeping the Old Pickguard Style

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The need for a new pickguard arises while striving to maintain a close resemblance to the original, including screw hole placement.




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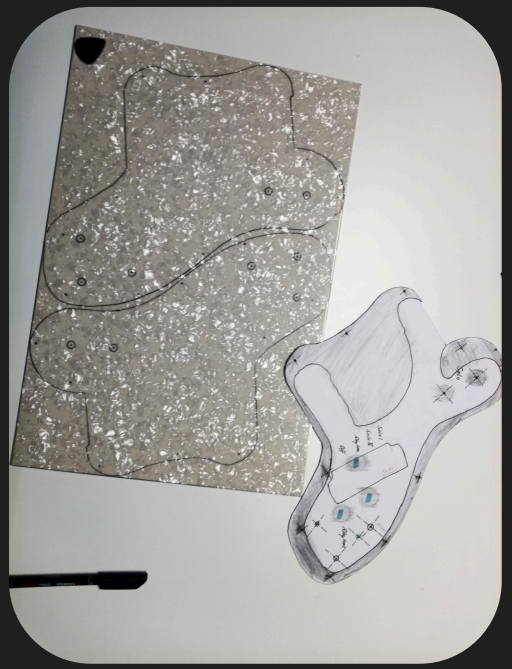

06 Does it Suit the Guitar Style?

A visual check of how it could look

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How it could look

07 Conventional Wiring

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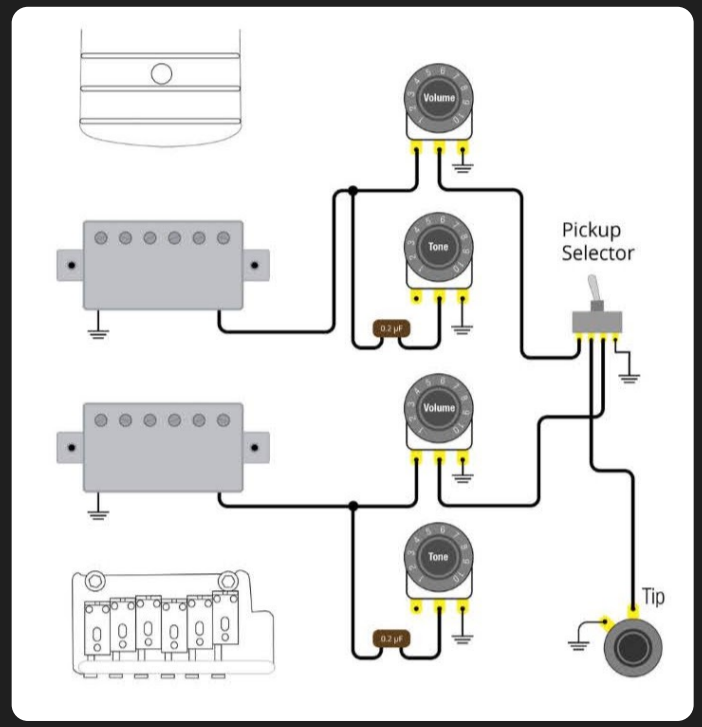
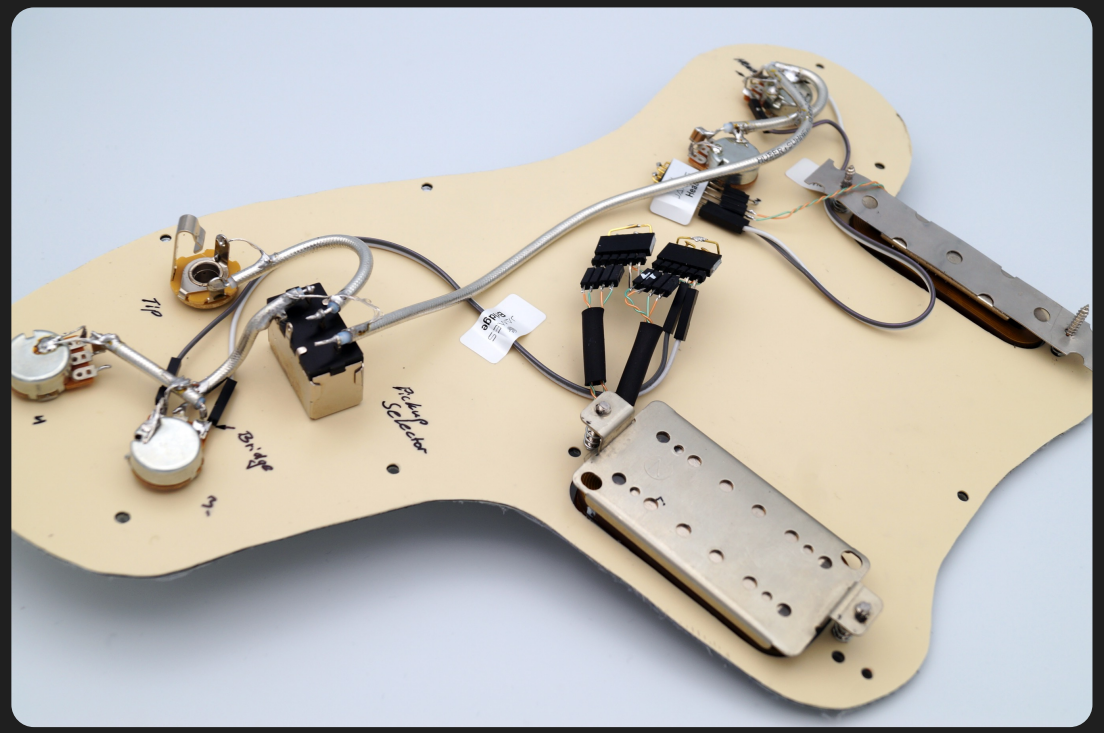
- To have a conventional reference design
- The AMEfication of a Pickguard wiring will happen in the next step of this Episode

Les Paul / Gibson Style





- Utilized antenna cabling material (semi-flex) for proper shielding
- Conducted manual wiring
- Faced the challenge of fitting numerous cables within the limited space of the old HOPF
- Primary focus was on validating the functionality of the design

08 AMEfication Recap

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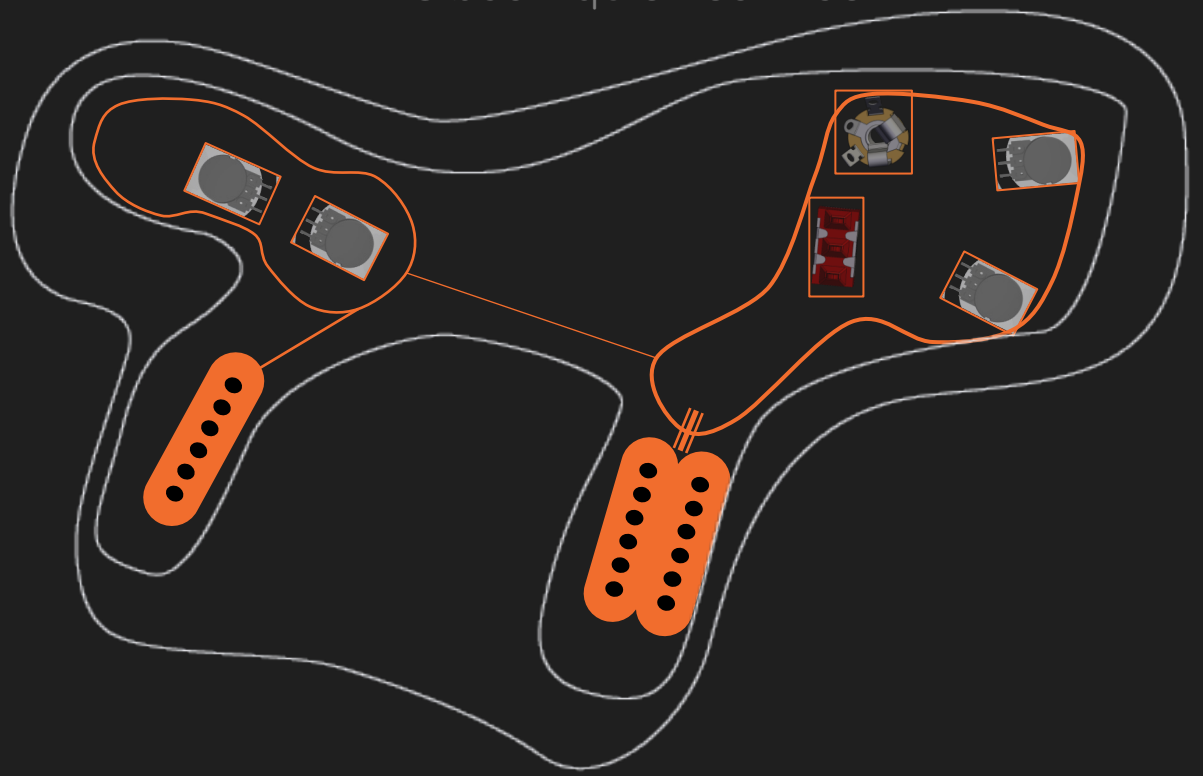
- Conventional Pickguard confirmed to work with heavy antenna cabling
- Transitioning towards a smarter approach: embracing the AME-way
- Aim to eliminate the need for cumbersome cabling
- Due to significant distance between head and bridge audio control, separate AME-boards will be implemented

Inspiration
Gibson quick connect



09 Next Steps of AMEfication

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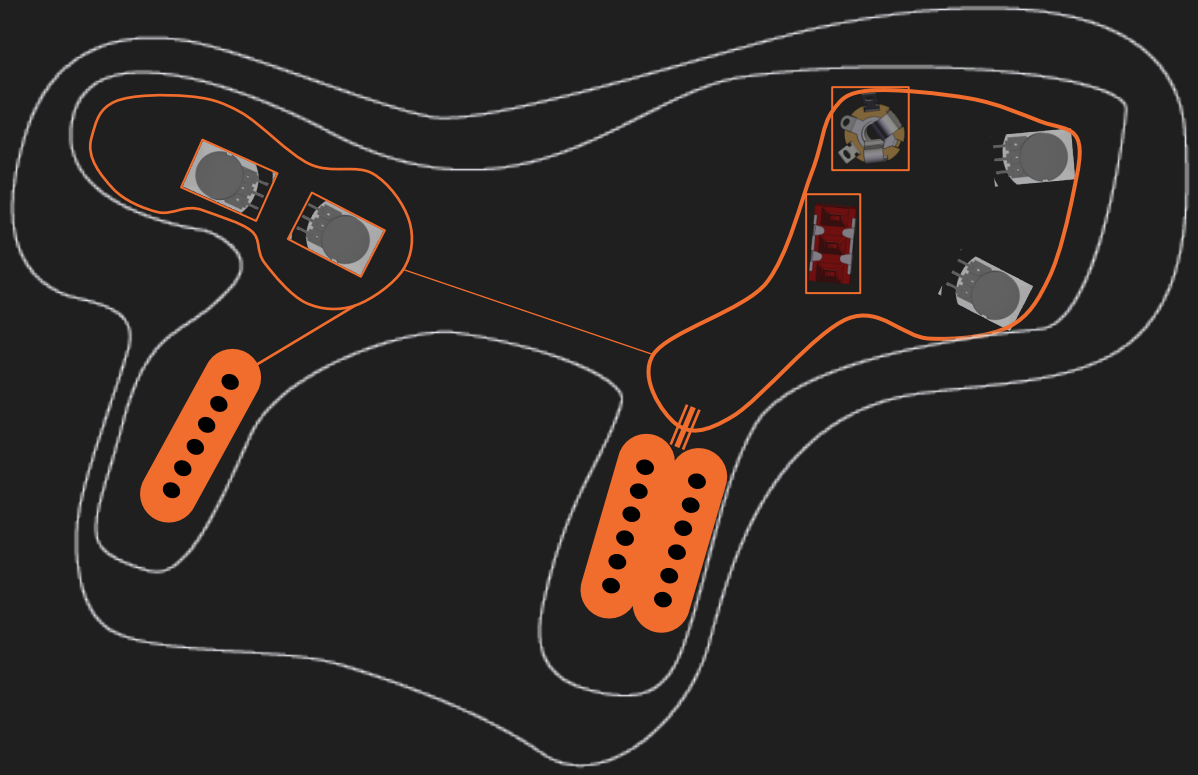
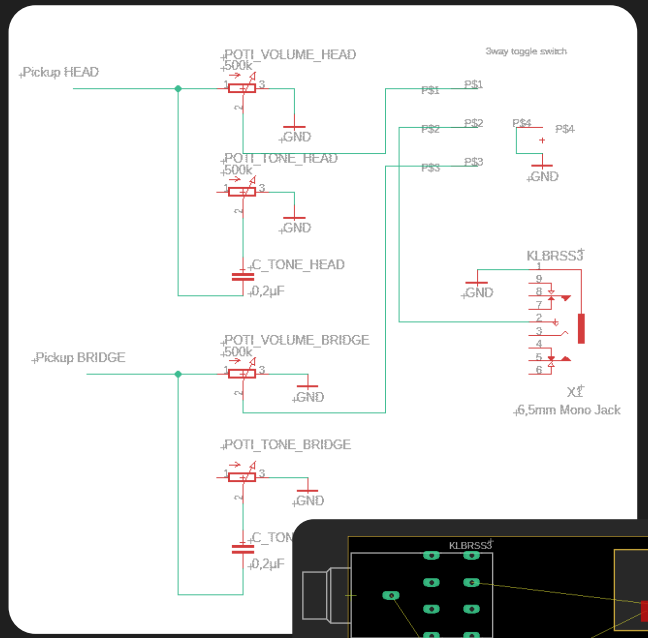
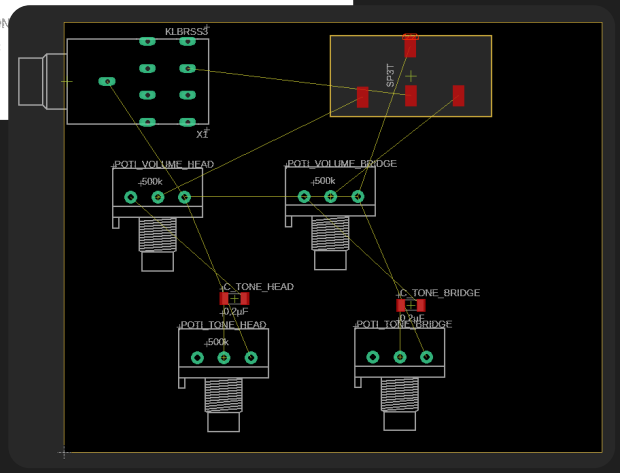
No activities have commenced at the moment.



Abstract Schematic and Layout





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See you next episode

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