Supporting Information

A Gravity-Triggered Liquid Metal Patch Antenna with Reconfigurable Frequency

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Figure S1. H_3 was 0.5 mm, the covering layer of the substrate collapsed.

Figure S2. (a) After soldering the copper foil and the SMA connector, the substrate made of *Accura*® 60 deformed. (b) Two substrates made of the Accura® 60 (at left) and HI TEMP® 300 (at right).

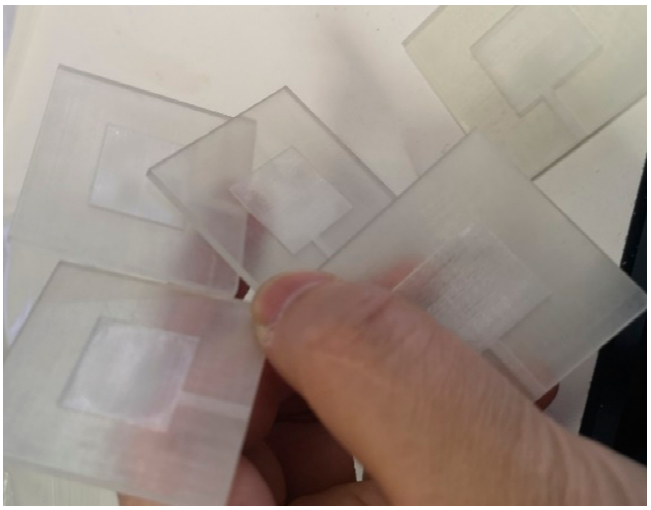
Table S1. Performance comparison of the two photosensitive resins.

Figure S3. In an attempted process route, the substrate was made of PDMS.

Figure S4. Another clamp with two fins, which are convenient to fix the antenna but also affect the radiation field.

Movie S1. The reconstruction process of the antenna at different rotation angles.

Table S2. The measured full dataset of the return losses of the fabricated antenna under 19 angles.



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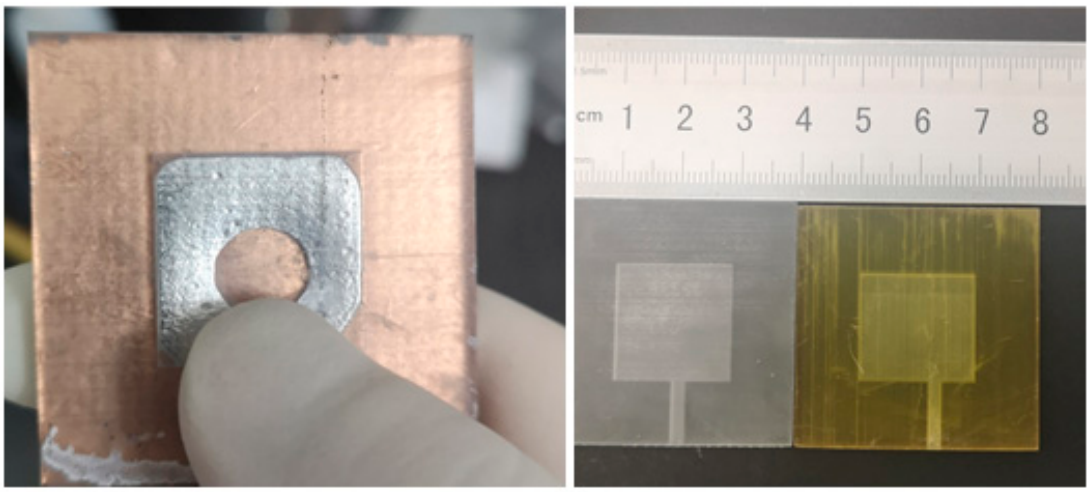

Figure S2. (a) After soldering the copper foil and the SMA connector, the substrate made of *Accura*® 60 deformed. (b) Two substrates made of the Accura® 60 (at left) and HI TEMP® 300 (at right).

Table S1. Performance comparison of the two photosensitive resins.

The type of material	*Accura® 60*	*HI TEMP® 300*
Printing method	SLA	SLA
The model of the printer	*ProX 800*	*Figure 4*
color	Transparent	Amber
Density in liquid state (g/cm^3)	1.13	1.19
Density in solid state (g/cm^3)	1.21	1.3
Thermal deformation temperature (℃)	53	300

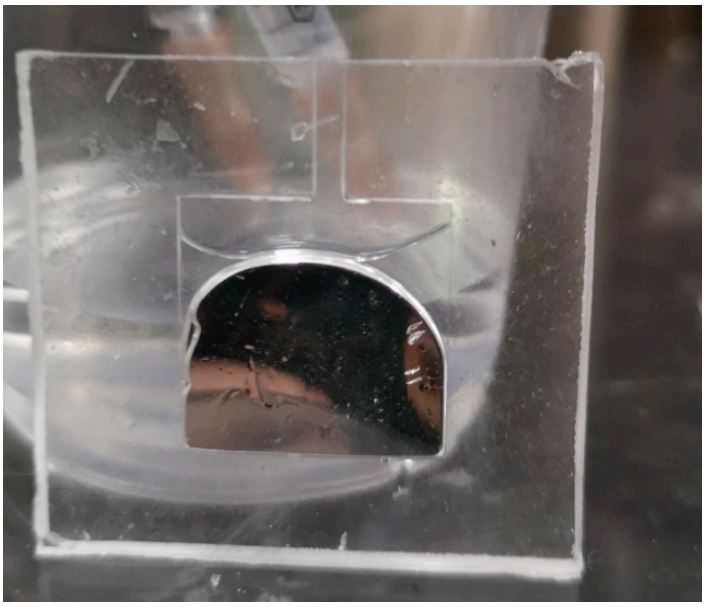

Figure S3. In an attempted process route, the substrate was made of PDMS.

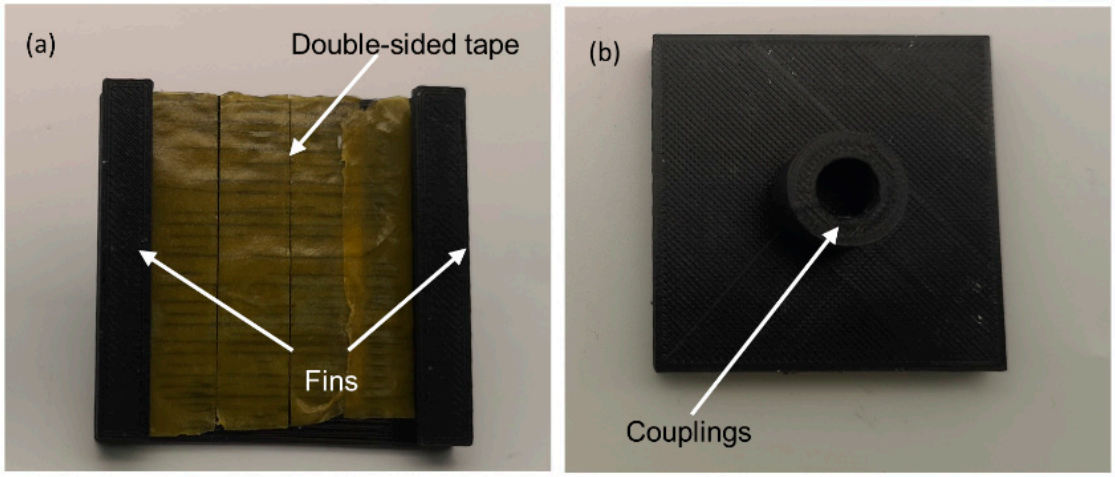

Figure S4. Another clamp with two fins, which are convenient to fix the antenna but also affect the radiation field.