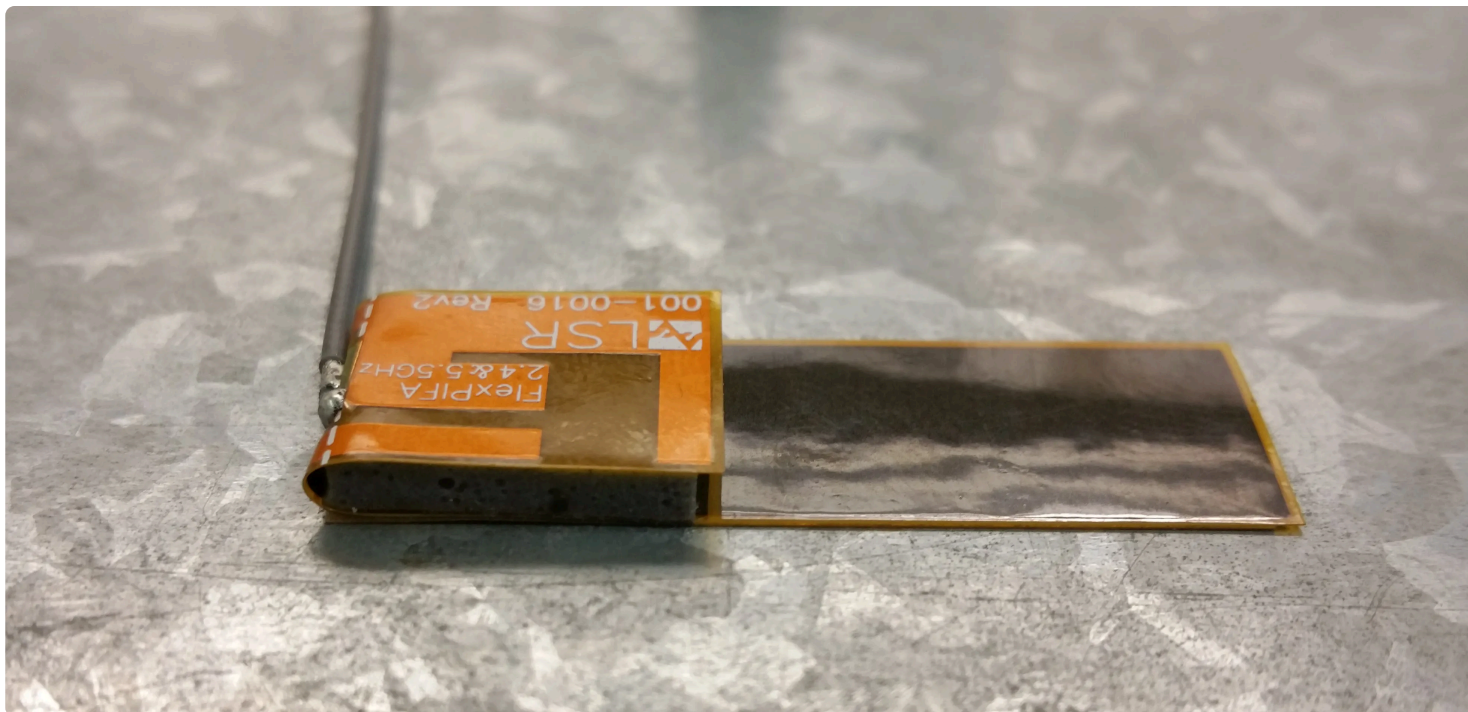




Do not mount the FlexPIFA where metal is within ten millimeters above the main element (see below). Not only does this severely limit the radiation pattern (mainly due to the re-radiation problem previously described) it detunes the antenna inside of this range.

Similarly, the two long sides of the FlexPIFA should be kept clear of any metal object by at least five millimeters. These keep out requirements pertaining to **conductive** materials only and are different from those listed in the previous sections which apply to **non-conductive** materials. In general, it is good practice to always keep metals as far away from the antenna as possible.

For the best performance, a spacer should be placed between the FlexPIFA and the conductive surface (see below). The spacer should be 1.5 millimeters thick polycarbonate. This will significantly improve performance and tuning of the FlexPIFA on a metal surface. Other non-conductive materials such as ABS plastic can be used; however, polycarbonate provides the best results.