Sensor Research

- Digital output needed from sensor as the data will have to travel a relatively long distance via a cable
- Piezoelectric, Force Sensitive Resistors and Microphones were considered
- Microphone was the chosen sensor type as this seemed like the most reliable sensor to detect if the ping pong ball has come into contact with the racket
- MEMs Digital Output microphone sensor chosen

Sensor Name	Price	Description
Adafruit PDM Microphone Breakout	£4.65	PDM signal output URL - https://www.digikey.co.uk/en/products/detail/adafruit-industries-llc/3492/8130887?utm_adgroup=&utm_source=google&utm_medium=cpc&utm_campaign=PMax%20Shopping_Product_New%20Customer%20Acquisition&utm_term=&productid=8130887&utm_content=&utm_id=go_cmp-19905262708_adg-_ad-__dev-c_ext-_prd-8130887_sig-Cj0KCQiAoKeuBhCoARIsAB4WxtfxuEMGZmAB_DO04UH956Tn8xTZ2WwxQ6C5-hsFln6VnOGxDn4TITQaAqItEALw_wcB&gad_source=1&gclid=Cj0KCQiAoKeuBhCoARIsAB4WxtfxuEMGZmAB_DO04UH956Tn8xTZ2WwxQ6C5-hsFln6VnOGxDn4TITQaAqItEALw_wcB Datasheet - https://cdn-learn.adafruit.com/downloads/pdf/adafruit-pdm-microphone-breakout.pdf
Adafruit I2S MEMS Microphone Breakout	£6.54	I2C signal output URL - https://www.digikey.co.uk/en/products/detail/adafruit-industries-

| | | llc/3421/6691114?utm_adgroup=&utm_source=google&utm_medium=cpc&utm_campaign=PMax%20Shopping_Product_New%20Customer%20Acquisition&utm_term=&productid=6691114&utm_content=&utm_id=go_cmp-19905262708_adg-_ad-__dev-c_ext-_prd-6691114_sig-Cj0KCQiAoKeuBhCoARIsAB4Wxtf2mEU4iGwagNfcdvujXylhPX__T2ByxjzYlzGim1B0RZj9GGDWN0QaApiPEALw_wcB&gad_source=1&gclid=Cj0KCQiAoKeuBhCoARIsAB4Wxtf2mEU4iGwagNfcdvujXylhPX__T2ByxjzYlzGim1B0RZj9GGDWN0QaApiPEALw_wcB

Datasheet - https://cdn-learn.adafruit.com/downloads/pdf/adafruit-i2s-mems-microphone-breakout.pdf |