**3rd: Macinley Butson, The Illawarra Grammar School, *The SMART System***

Macinley has taken her revolutionary SMART Armour breast shield that won a first-place award at Intel ISEF 2016 to the next level with the addition of a magnetic array that deflects tissue damaging electron contamination out of the treatment field to peripheral regions of the patient where the SMART armour can then absorb and shield the patient from this unwanted and detrimental radiation exposure. She utilised the mathematical Monte Carlo modelling simulation technique at MIT to test her system.