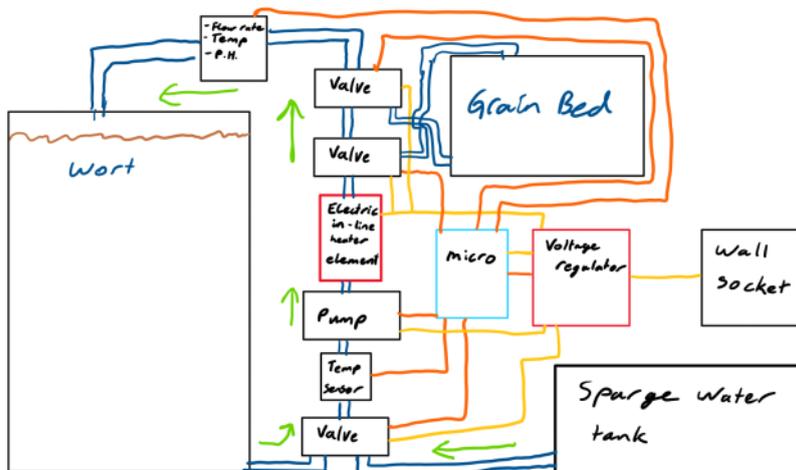


### External Grain Bed

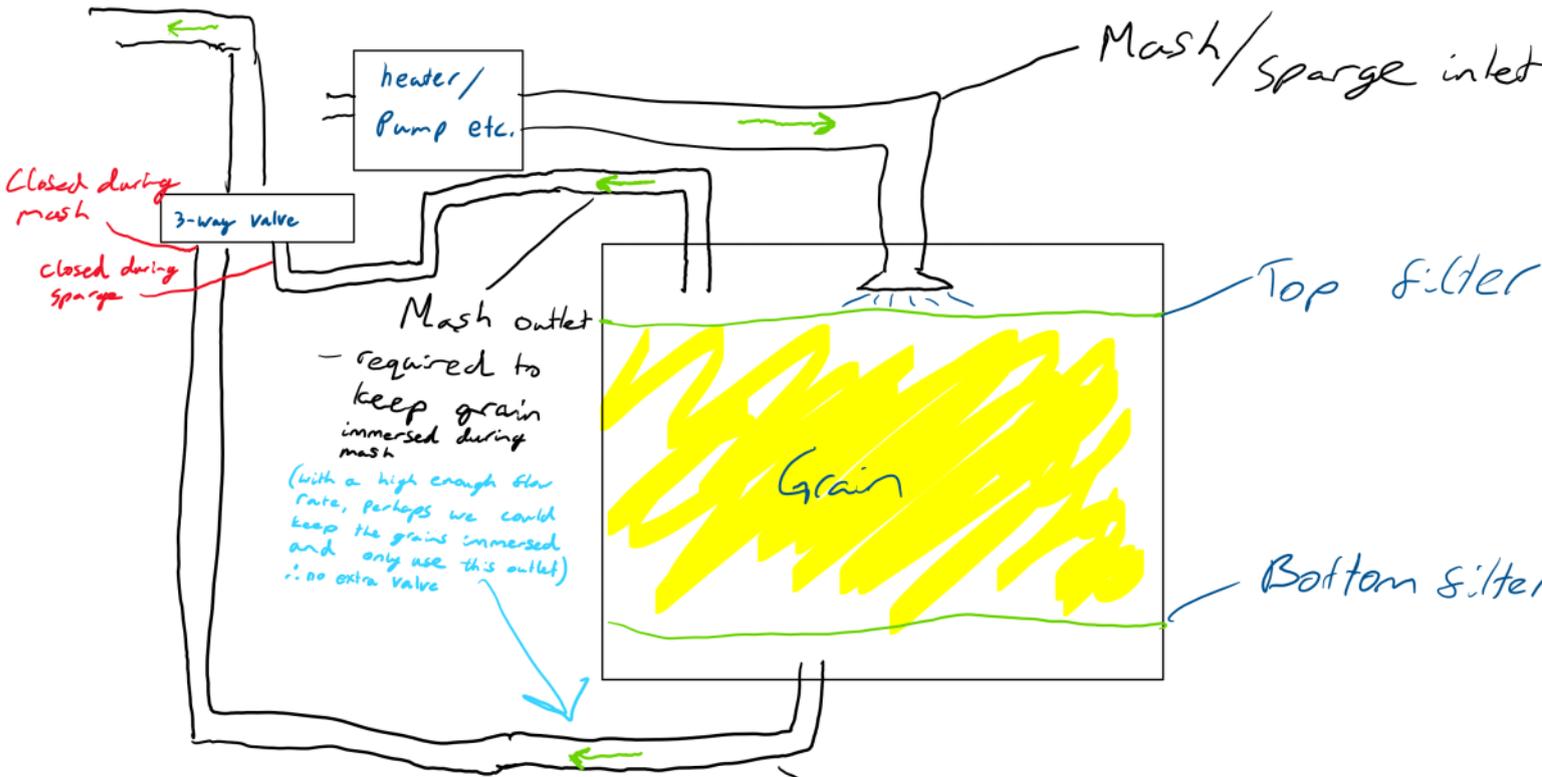


- No Need to remove grain for Spurge / Boil
  - Safety
  - Less user interaction
  - Spurge in unit
  - don't need to reposition recirculation hose
  - No need for specially sized grain basket
- Additional Hardware required
  - hoses & fittings
  - 2x valves
- Grain vessel

therefore



# Grain receptacle Ideas

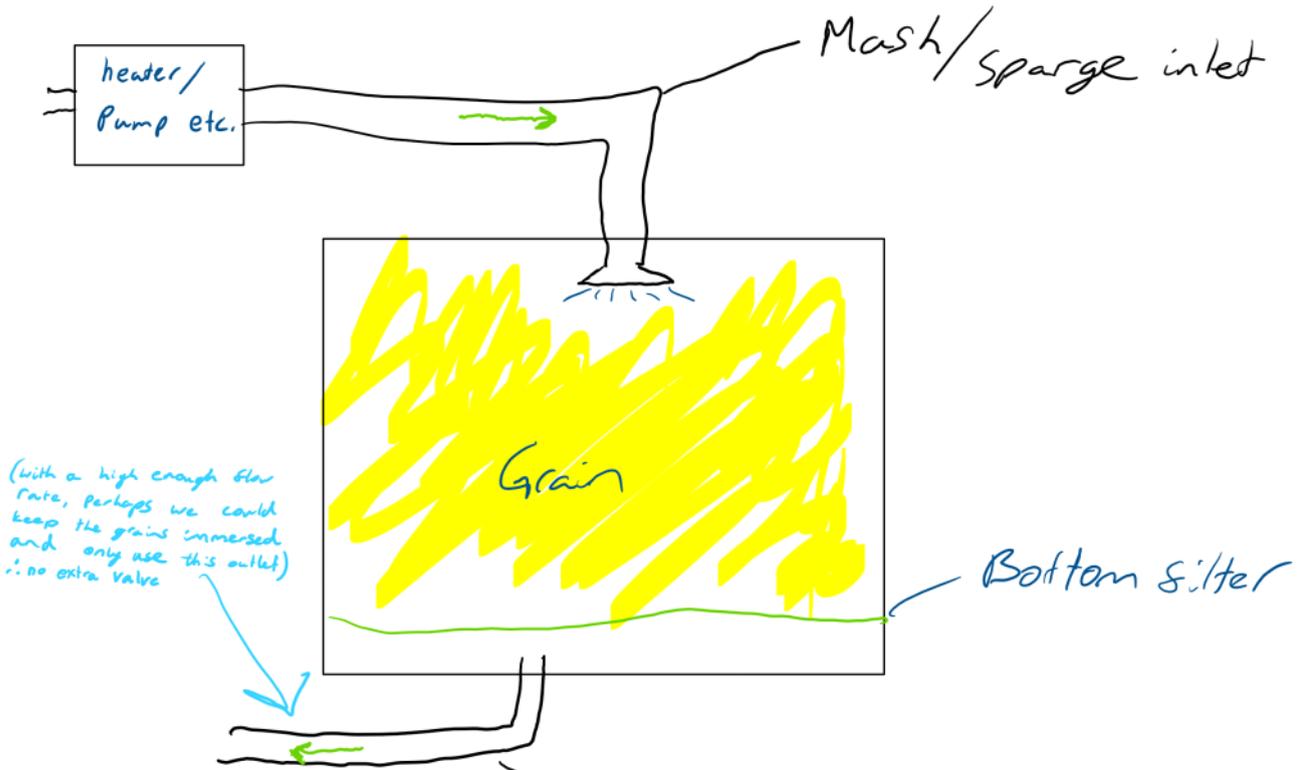


Would need to be gravity-fed  
(grain receptacle  
vessel) or have 2nd pump  
if we want all wort to  
be removed from grain vessel  
after sparging

Sparge outflow  
- required so that  
all wort can be  
drained



# Grain receptacle Ideas



(With a high enough flow rate, perhaps we could keep the grains immersed and only use this outlet) ∴ no extra valve

Would need to be gravity-fed (grain receptacle - impeller higher than main vessel) or have 2nd pump if we want all wort to be removed from grain vessel after sparging

Sparge outflow - required so that all wort can be drained

Or adapt to existing mash tun?

