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# Learning human motion intention for pHRI assistive control

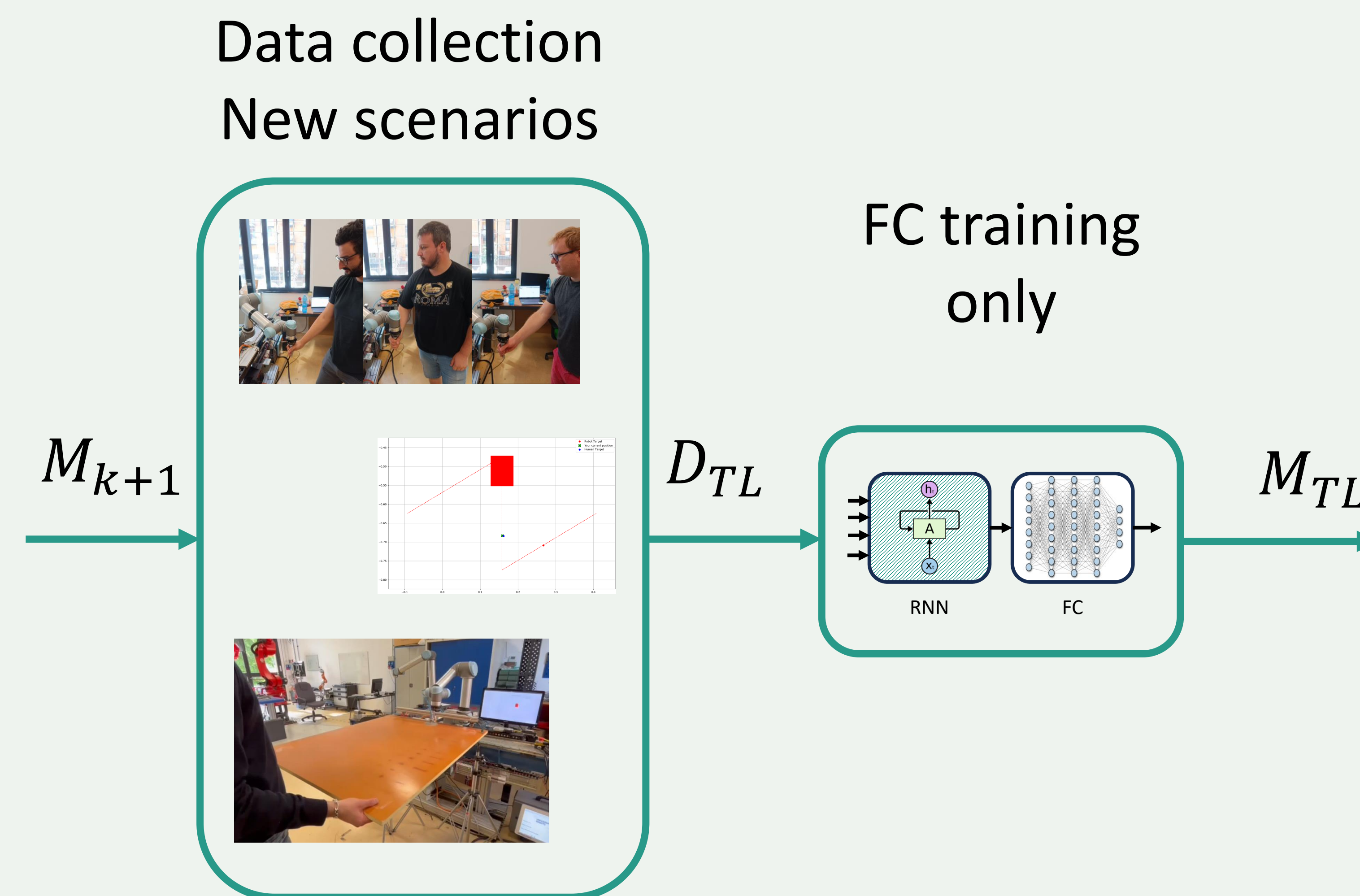
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## Motivation

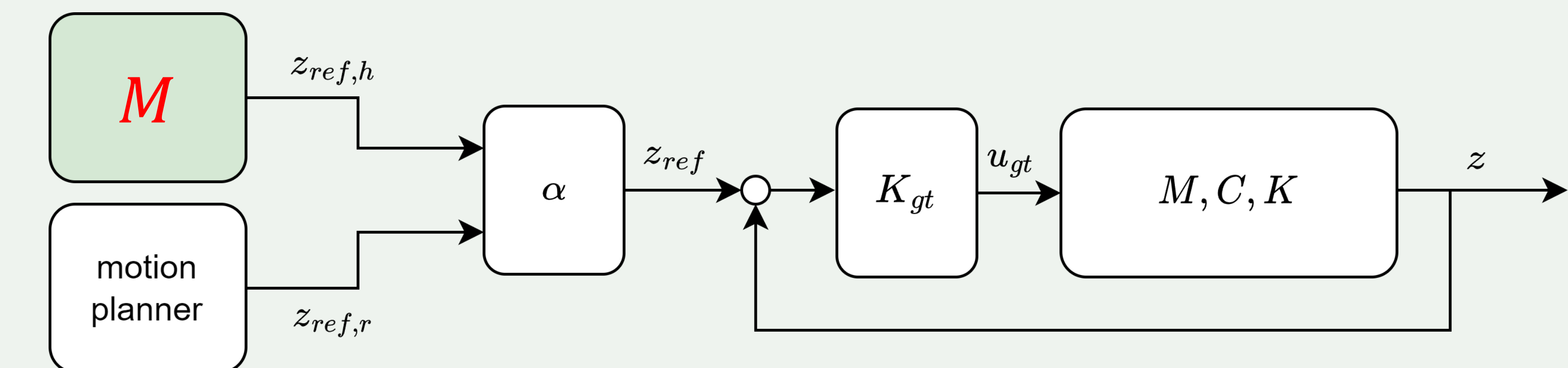
- Create a model capable of predicting human intention to enhance pHRI
- Human intention defined as desired motion

## Transfer Learning



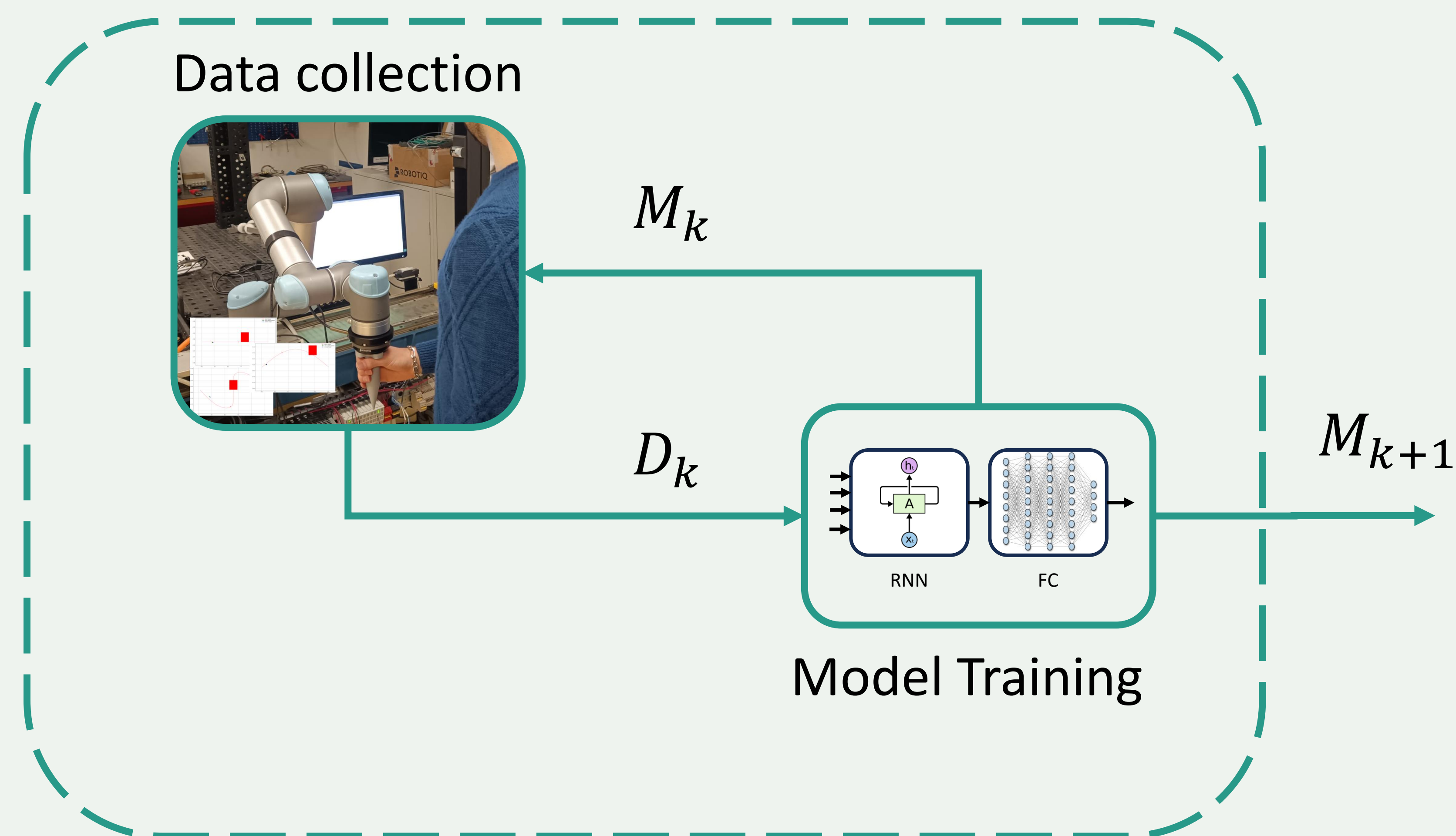
- New datasets  $D_{TL}$  collected with new scenarios
- Training of the FC layers only  $M_{TL}$

## Control Framework



- Cooperative GT control framework
- At each iteration  $M$  is updated with the newest model

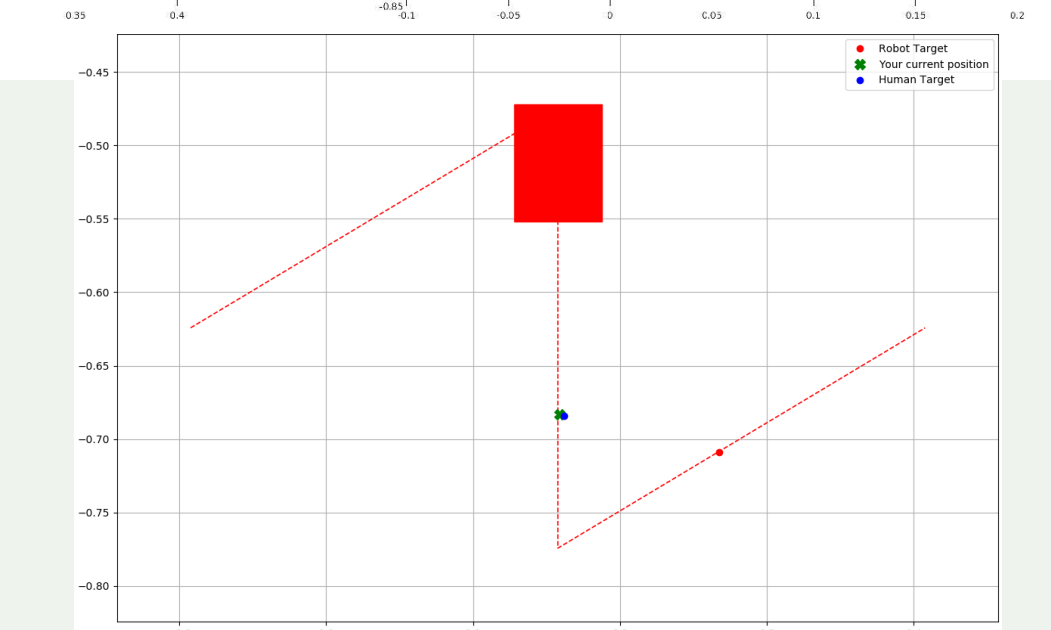
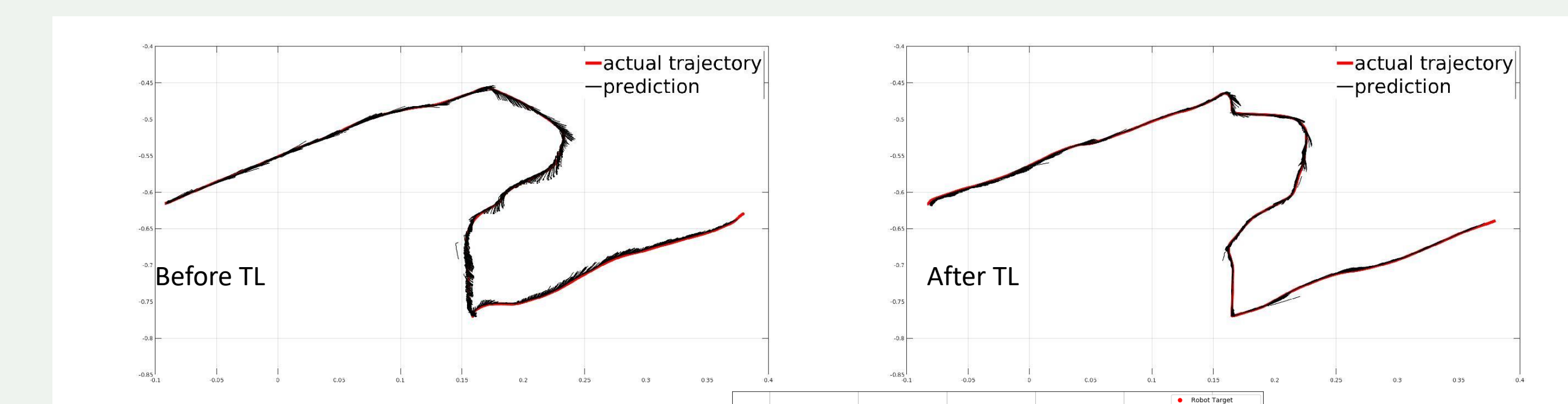
## Iterative Training



- At each step a new dataset  $D_k$  is collected
- $D_k$  allows training a finer model  $M_k$

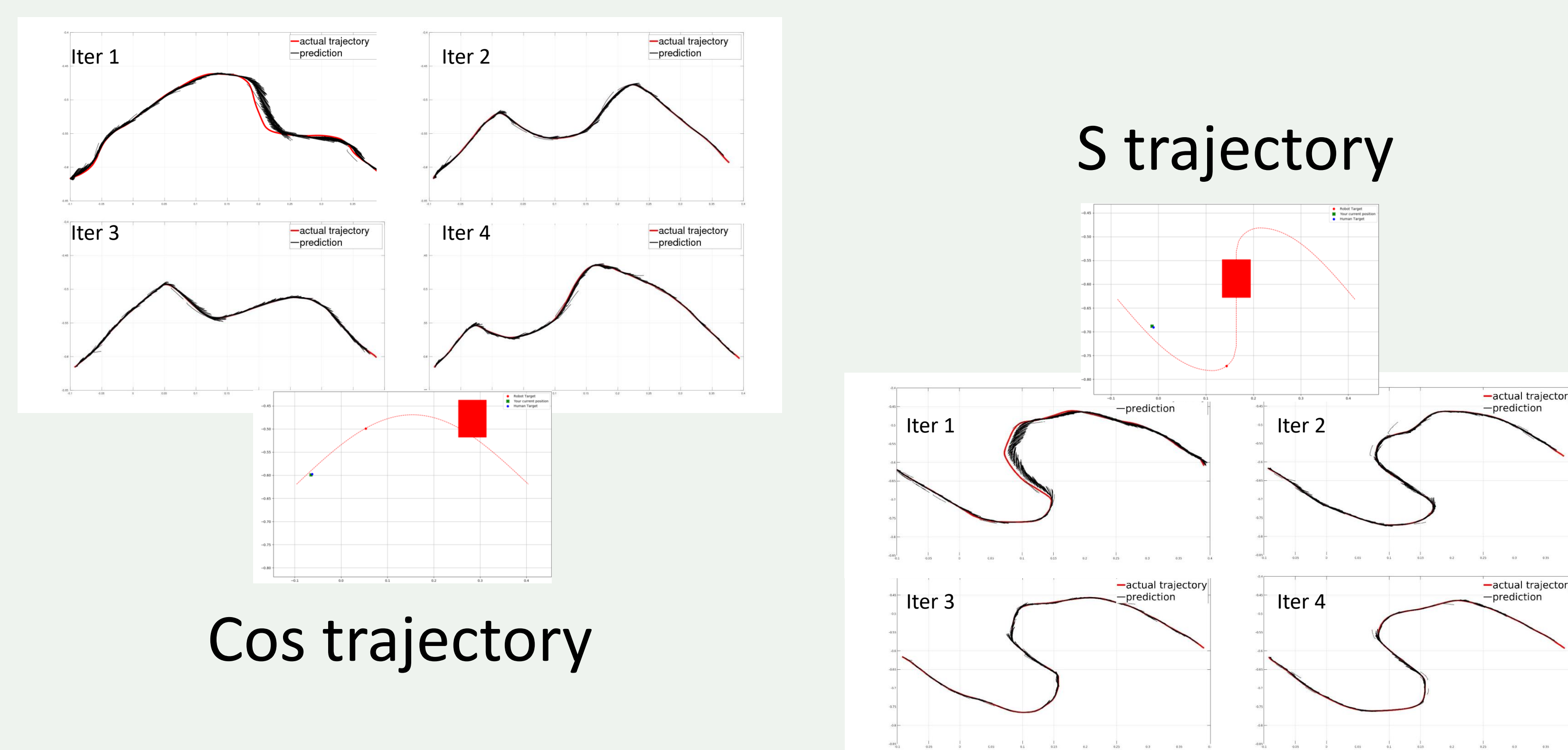
## TL Results

TL on new trajectory



TL on new object

## Iteration results



## Contacts

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